

April 1956

THE *Country* GUIDE

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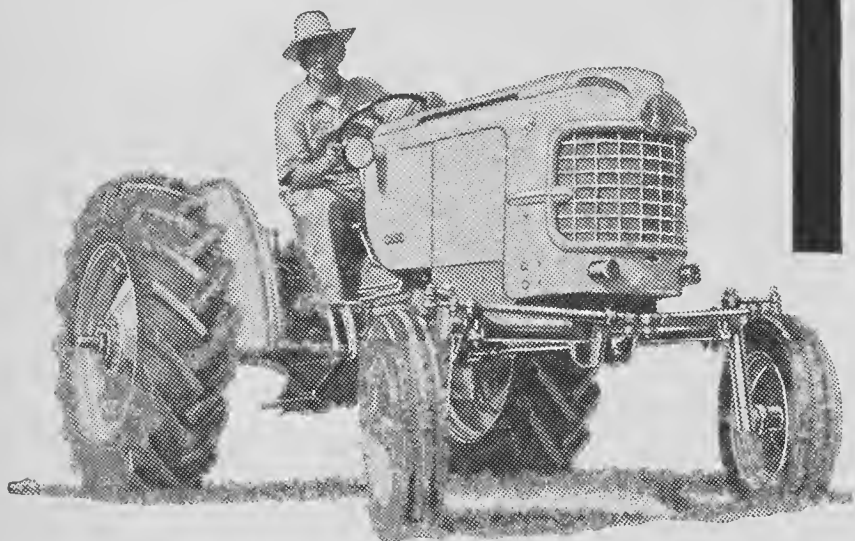


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[Gulde photo]

THE *Country* GUIDE

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COVER: Our artist this month is Mrs. N. I. Knudsen, Loon Lake, in northwestern Saskatchewan. Of her painting, to which our engravers have not done full justice, she says: "This is the way cows on Saskatchewan and Alberta farms stand around after a drink. They have been in the barn all night and had their morning feed, and now they have had a drink of warm water. So they just stand and enjoy the fresh air. After a while they will begin to move, to rub on a post and browse, until they amble off to their feedlot, or back to the barn."

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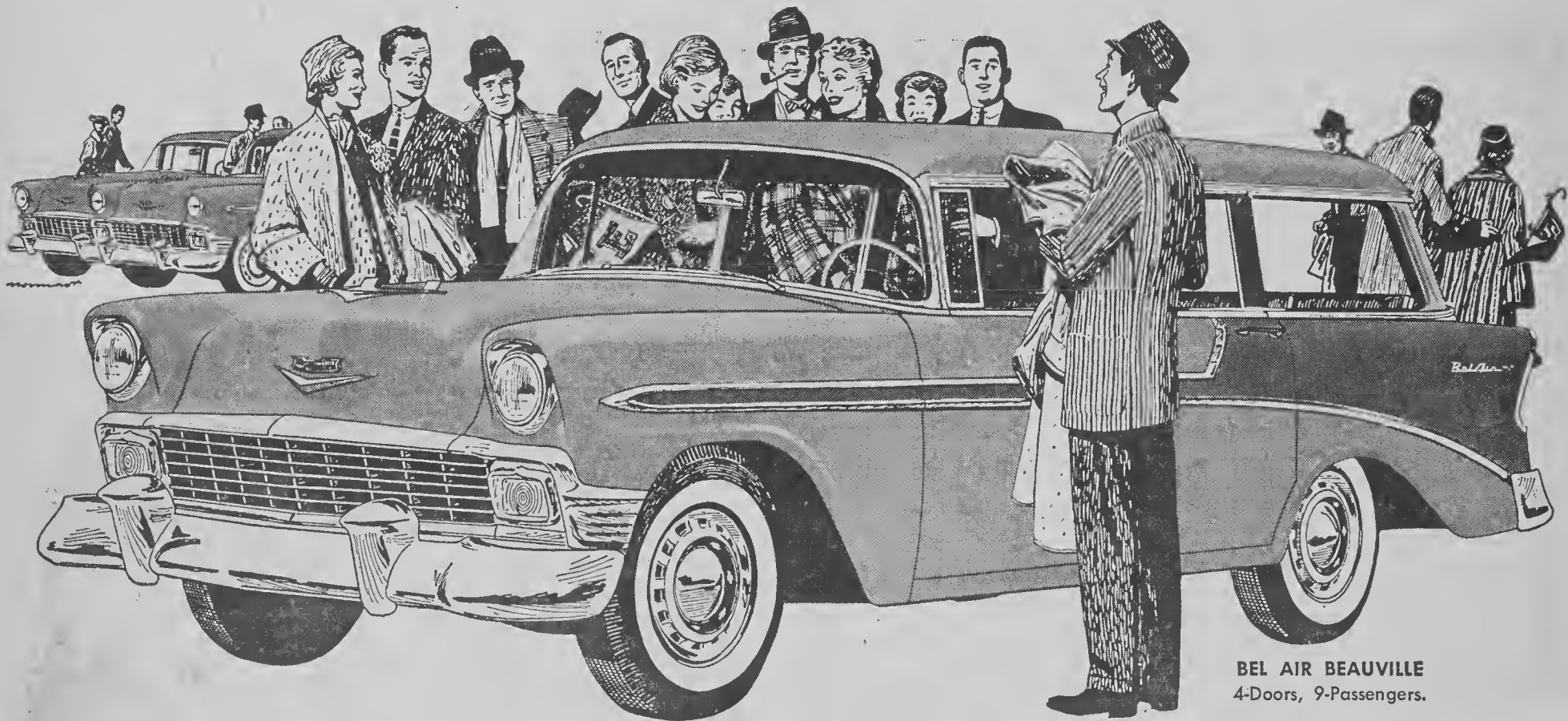
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CREAM SODAS



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PAULIN'S PEERLESS
CREAM SODAS are the perfect
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only as Paulin's can make them —

LOOK FOR PAULIN'S CREAM SODAS . .
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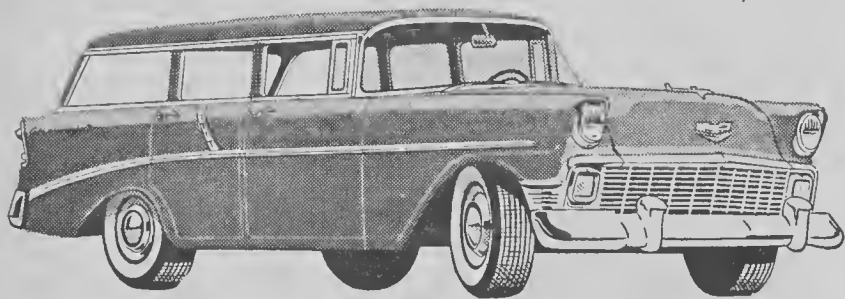
"I've got room for 9 of us"



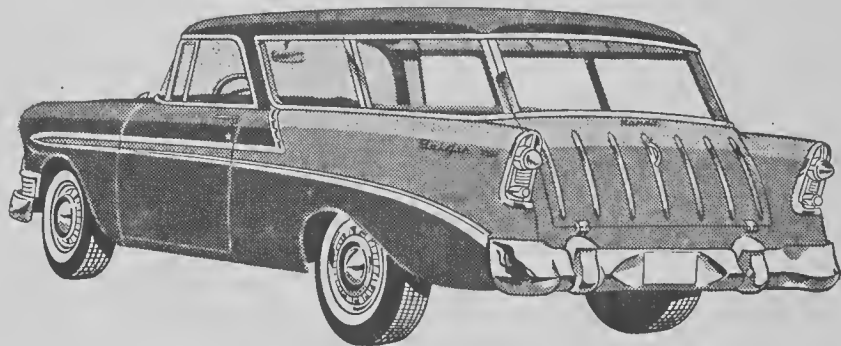
BEL AIR BEAUVILLE
4-Doors, 9-Passengers.

Chevrolet offers you a choice of 4
sprightly new Station Wagons,
including two new 9-passenger models!

THESE CHEVROLETS can knuckle down and work as hard as the next wagon — and they've got the linoleum-lined cargo space to prove it. Nearly 9 feet of it with the end gate down. But, let's face it, they'd much rather take off for a good time — and they've got the power and performance to prove that! A zippy, exciting kind of power that's fun to handle. And the closest thing to sports car performance — split-second steering reaction and the knack of holding fast around corners and curves — that you'll find in a full-size automobile. Utilitarian? Yes. A real road car? Most emphatically yes! And safer because of it. See your dealer for a demonstration.



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Section of middle seat folds for easy access to rear!



BEL AIR NOMAD — 2-Doors, 6-Passengers.
Rear seat back and cushion fold level with floor!

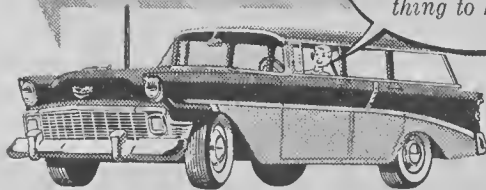


"TWO-TEN" TOWNSMAN — 4-Doors, 6-Passengers.
Washable, all-vinyl interior lasts and lasts!

A GENERAL MOTORS VALUE



Traffic test it!
It's a beautiful
thing to handle!



THE HOT ONE'S EVEN HOTTER

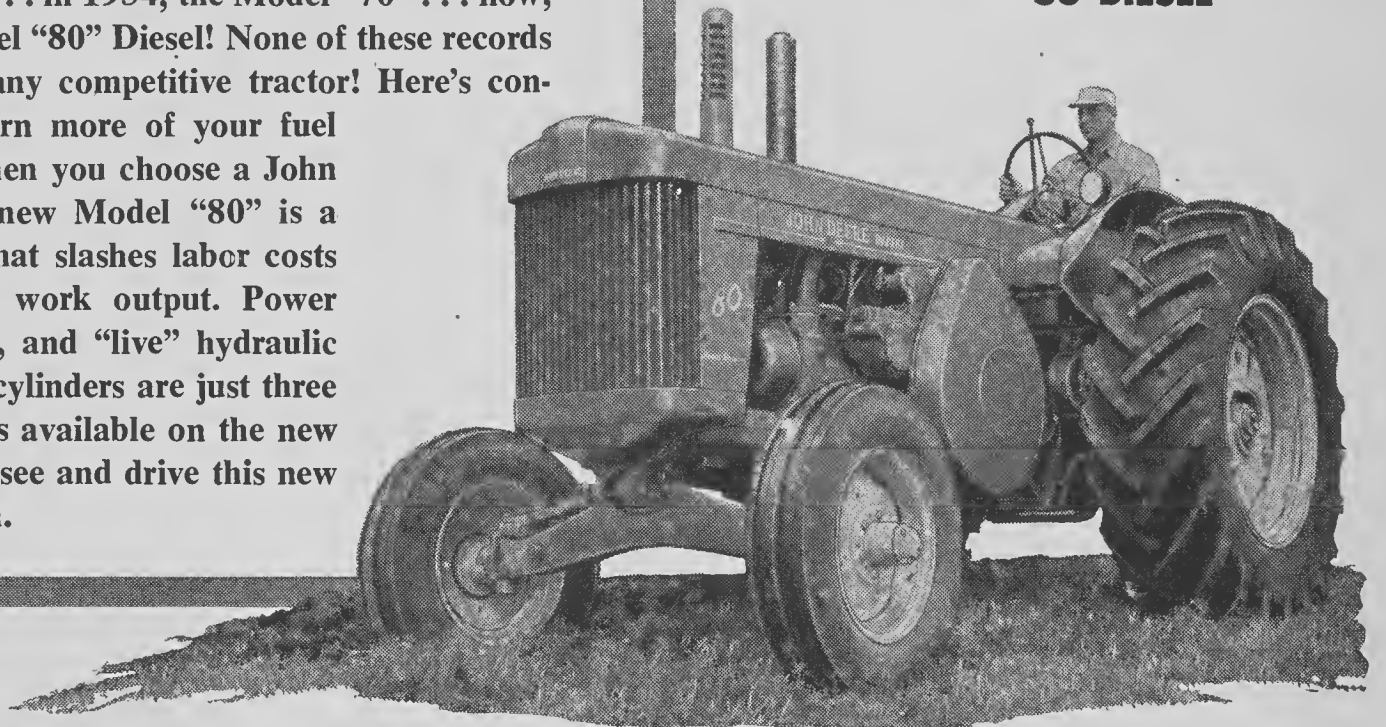
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SEE YOUR AUTHORIZED CHEVROLET DEALER

Another John Deere Diesel Tractor SETS NEW FUEL ECONOMY RECORD

FOR the third straight time, a John Deere Diesel has set a new fuel-economy record in official tests at Lincoln, Nebraska. In 1949, it was the Model "R" . . . in 1954, the Model "70" . . . now, it's the new John Deere Model "80" Diesel! None of these records has ever been equalled by any competitive tractor! Here's convincing proof that you'll turn more of your fuel dollars into profit dollars when you choose a John Deere Diesel Tractor. The new Model "80" is a powerful 5-6 plow tractor that slashes labor costs by greatly increasing daily work output. Power Steering, "live" power shaft, and "live" hydraulic Powr-Trol with two remote cylinders are just three of the many modern features available on the new Model "80." You'll want to see and drive this new fuel-economy champion soon.

**JOHN DEERE 5-6 PLOW
80 DIESEL**



If Your Farming Calls for DIESEL Power You'll Be 'Way Ahead with a JOHN DEERE

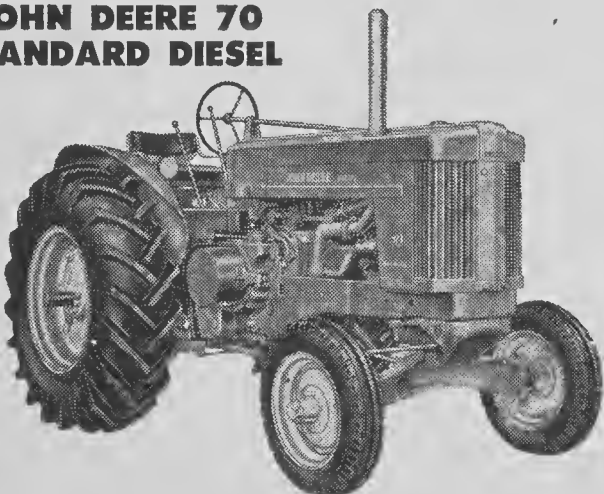
The John Deere "70" Standard Diesel, shown below, is another Nebraska fuel-economy champion. It's a husky 4-5 plow tractor that has brought new operating economy to farmers wherever grain is grown in Canada.

Here's *extra lugging power* that does away with slow-ups and down shifting in heavy going . . . power with matching speeds to work big equipment at maximum capacity and cut days off your working calendar. Here's *extra economy* that will drive your production costs down and boost your profits . . . record-breaking fuel economy that is being proved every day in the field plus the lower upkeep costs of exclusive two-cylinder design.

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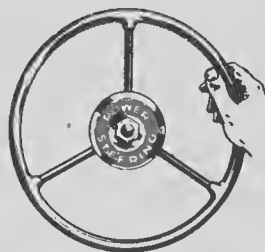
If you measure profits in bushels of grain, you'll want to drive the new "70" Standard or "80" Diesel Tractor. Once you have, you'll agree—If your farming calls for Diesel power, you'll be way ahead with a John Deere!

**JOHN DEERE 70
STANDARD DIESEL**



There's a new "look" in grain tractors, and the John Deere "70" Standard Diesel really has it! It's an outstandingly economical Diesel that is performing its way into the hearts of Canadian grain growers.

A
WORD
ABOUT



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John Deere Power Steering is an outstanding feature that offers you new freedom from steering effort and driver fatigue every minute you're at the wheel—saves time; insures better work. It's one of the many features available on the John Deere "70" Standard and "80" Diesel Tractors.

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operation.

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gasoline, oil and grease
needs . . . Call your
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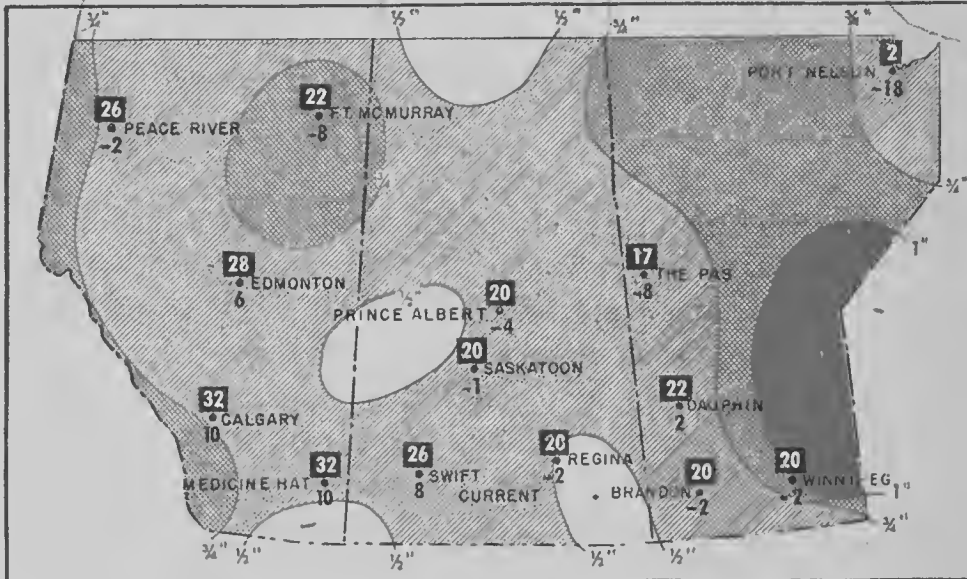


ALWAYS
LOOK TO IMPERIAL
FOR THE BEST

Prairie Weather

Prepared by DR. IRVING P. KRICK and Staff
for
THE COUNTRY GUIDE

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—ed.)



AVERAGE WEATHER
FEBRUARY 15 - MARCH 15

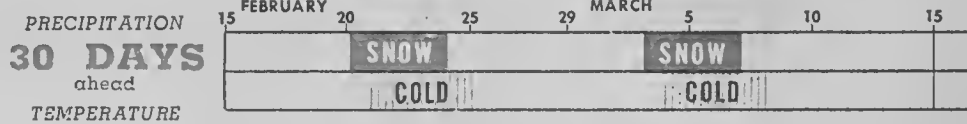
KEY: TEMPERATURE
30 Max.
5 Min.
PRECIPITATION
Average Inches
During Period

Alberta

Cold weather will be rather persistent in Alberta from mid-February to mid-March. The greatest temperature departures are anticipated from the North Saskatchewan basin south to Montana, with temperatures averaging several degrees below normal. Two major outbreaks of polar air are expected; first, on or about February 21 and again about March 5. Minima will range from 20 to 30 below zero in

the central area and north, 10 to 20 below in the south.

Snowfall will be appreciable and generally above normal. Air rising on the upslope to the Rockies will deposit considerable snow in southern Alberta. Snow cover will persist virtually everywhere and pastures, ranges and stubble fields will be closed to stock for the better part of the time. Winter grains will be adequately protected from desiccating cold. Irrigation prospects appear excellent.

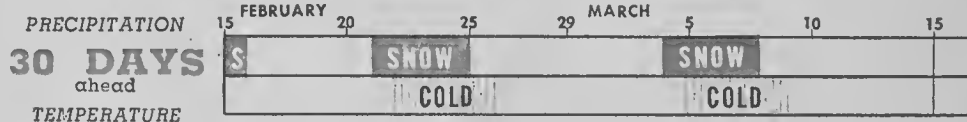


Saskatchewan

Cold weather will dominate the period in Saskatchewan. Extremes, however, are not anticipated. Severe outbreaks of polar continental air will be lacking, but the absence of sustained southerly flow will be expressed in subnormal temperatures. Coldest weather is expected during the last week or ten days of February and for several days around March 5. Minima during the cold spells will be 25 to 40 below in the north, 10 to 25 below in the south. Highest temperatures likely

to be experienced will be in the upper 30's or low 40's.

Precipitation will approximate normal with the heavier amounts occurring in February. A definite trend to dry weather is expected in March. Only southwestern Saskatchewan will realize appreciable precipitation, with upslope winds depositing rather heavy snow. Snow cover will range up to 15 or 20 inches. No thawing of consequence will result in continued heavy feeding of stock. Frozen soils will inhibit any significant change in the soil moisture situation.

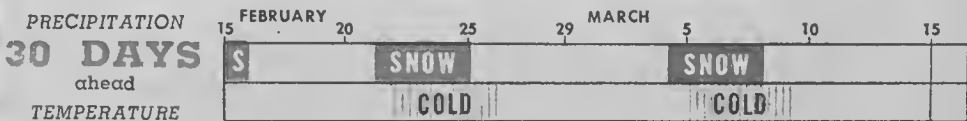


Manitoba

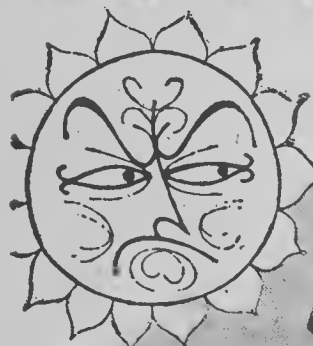
Dry and relatively cold weather is in prospect for Manitoba. Although moderate snow will be experienced during the latter half of February, the trend will be in the direction of a dry March. Precipitation for the period is unlikely to exceed 1/2 inch of moisture, or the equivalent of 5 to 7 inches of snow. The absence of appreciable warming, however, will sustain snow cover and seasonably heavy feeding of stock will continue. Frozen soils will

inhibit any significant change in soil moisture. Farm activity will be generally limited to the usual wintertime chores.

Temperatures will average moderately below normal but no extremes are anticipated. Cold air of polar origin will be warmed considerably upon reaching Manitoba. Coldest weather is expected about February 22 to 26 and March 5 to 10, at which time minima will range from 30 to 40 below zero in the north, 15 to 30 below in the south.



NEW IMPROVED RUBBER COMPOUNDS



RESIST WEATHER CHECKING

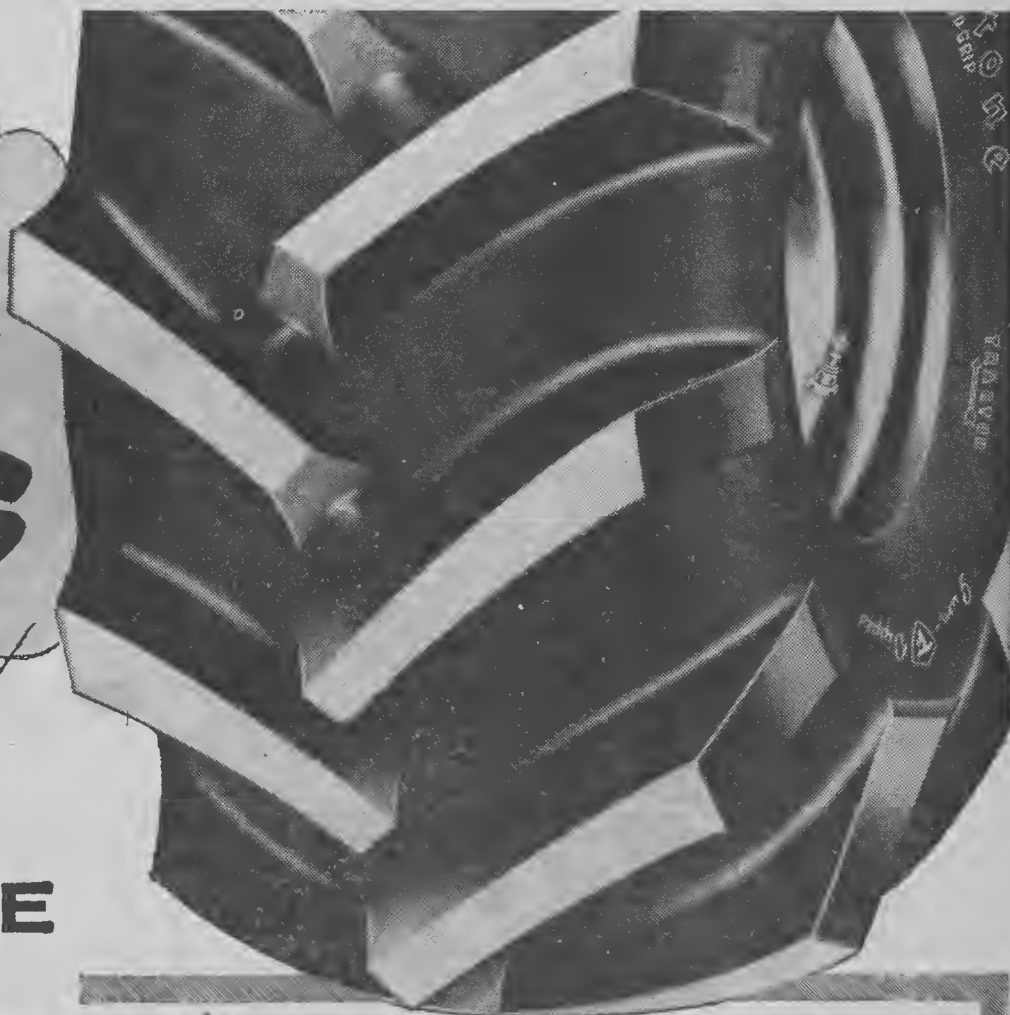
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of EXTRA SERVICE

Firestone

FARM TIRES

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- (3) **Flared Tread Openings**—Prevent tread clogging... assure positive cleaning.
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WHEELS



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TIRES



FARM TRUCK
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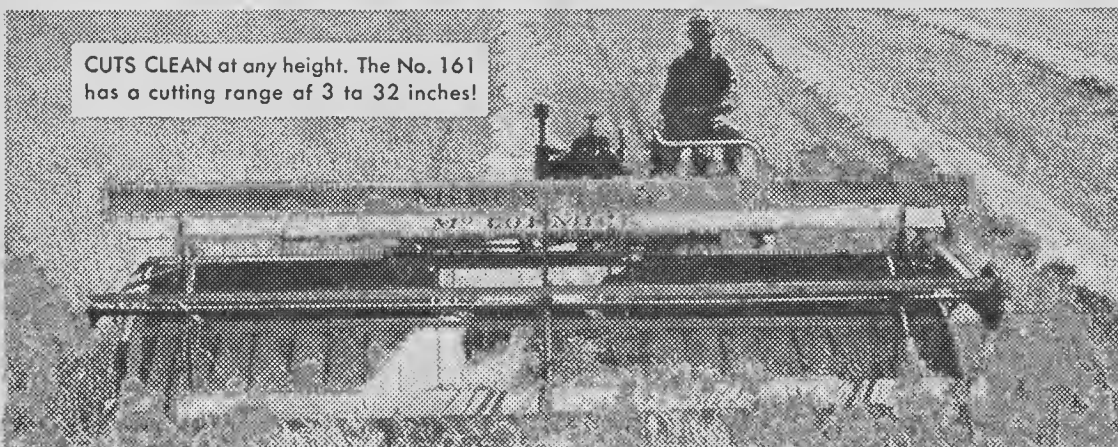
Self-propelled

161

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Designed, developed, field-proved and manufactured by International Harvester. Here's the *only* self-propelled windrower on the market BUILT by a major line company. The McCormick No. 161 self-propelled cuts its own path... you open a field anywhere, without damage to standing crop. Team it up with *your* combine and have the ideal crop-saving combination, to save you time and work; and keep your harvesting costs low.

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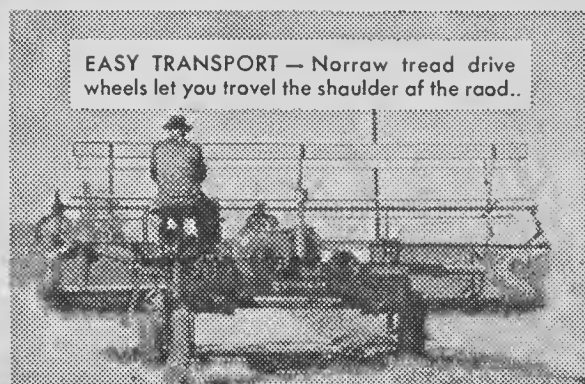
CUTS CLEAN at any height. The No. 161 has a cutting range of 3 to 32 inches!



FULL MANEUVERABILITY to get all of your crop—no losses in field-opening.



MAKES CRISS-CROSSED SWATH for maximum stubble support and clean, easy pick-up.



EASY TRANSPORT — Narrow tread drive wheels let you travel the shoulder of the road.

FEATURES

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Vice-president

C.F.A.

Twentieth Annual Meeting



H. H. Hannam
C.F.A. President

Policy Approved with Respect to Farm Credit, International Trade and Surplus Disposal, and Radio and Television

by H. S. FRÝ

TOWARD the end of January, Hamilton, Ontario, was the scene of the twentieth annual meeting of the Canadian Federation of Agriculture. The C.F.A. annual meeting alternates between eastern and western Canada and will be held in Winnipeg in 1957. This year's meeting was commonly considered to have been a good one and certain important policy decisions were reached. Nevertheless, there are signs that the national organization is anxious to take another step toward perfection, and indeed is likely, before long, to appoint a special committee to give close study to the problem of its structural reorganization.

The C.F.A. is in the process of formulating its official policy on the major matters concerning agriculture. At the previous annual meeting in Edmonton, it approved a report presented by a special committee concerned with the formulation of policy, on the general question of price supports for agriculture; and the policy thus approved was later presented to the Federal Cabinet in the annual brief of the C.F.A. Since then, the Policy Committee has presented three further reports, on farm credit, on international trade and surplus disposal, and on radio and television. These reports formed the basis of policy on these subjects as approved by the Hamilton meeting, and will likewise be embodied in the annual brief to the Cabinet, to be presented on February 14. Four other Policy Committee reports have been in preparation for some time, on agricultural co-operation, agricultural marketing legislation, agricultural education, extension and research, and on immigration. Policy on these matters will undoubtedly be formalized at the annual meeting in Winnipeg next January.

The Canadian Federation of Agriculture has always been forced to operate on a too limited budget. For an organization attempting to speak for some 600,000 farm family businesses, and more directly for some 400,000 of these, a budget of \$70,000 permits only a head office staff of six persons, including three stenographers. Salaries, though not high, require something over 40 per cent of the budget; office space and expenses in connection therewith, around 10 per cent; travelling and convention expenses about 15 per cent; and contributions to National Farm Radio Forum and the International Federation of Agricultural Producers about 25 per cent. The balance, about 20 per cent, less legal fees, depreciation and other miscellaneous and general expenses, leaves far too little for the expansion of the work that should be done by a national farm organization.

Nevertheless, the report of the Secretary suggests a very active organization on behalf of agriculture. Quite aside from the holding of two special board meetings during last year, and the work of the Farm Policy Committee, two special livestock meetings were arranged during the year. The president and a number of other delegates attended the I.F.A.P. conference in Rome, last September. Mr. Hannam is a past president of I.F.A.P. and is currently a member of the Executive. He also attended

the F.A.O. meeting and the International Wheat Meeting in Geneva. During the year also, the C.F.A. has been represented officially in Canada at the Federal-Provincial Agricultural Conference, and the Annual Farm Labor Conference in Ottawa. It has representation on the National Agricultural Advisory Committee, National Farm Radio Forum, National Employment Committee, and the Vocational Training Advisory Committee, and has prepared special briefs and presentations in connection with feed freight assistance, tariff and sales tax, taxing plan contributions, tariff board investigations, the Royal Commission on the Coasting Trades, and in connection with tariffs and quotas on Red Fescue and Alsike seeds.

THE Farm Credit Policy of the C.F.A. does not recommend any new federal farm credit institutions except one to administer a special new type of emergency farm credit. Nor does the C.F.A. recommend any major change in what is called short term credit, or credit for one or two years. The new C.F.A. policy seeks equal rights for men and women as prospective borrowers. Principal target of the new policy is the Canadian Farm Loan Board, which it is believed has been too conservative in its operations; has not adequately sought to increase its business and thus reduce its overhead per unit of money lent; and has, in its general policy, not been flexible enough to meet the rapidly changing conditions in agriculture.

Some amendments are sought to the Farm Improvement Loans Act. Where the C.F.A. asks for long term loans under the Canada Farm Loan Board, at an interest rate of 3.5 per cent, it seeks a reduction to four and one-half per cent for farm improvement loans. It likewise wants repayment periods up to six years on farm machinery loans, and up to ten years on other loans, as well as a limit of \$1,600 on the required annual repayments, by any individual who may have more than one loan under this act. Likewise, the C.F.A. believes that the ten per cent farm improvement loan guarantee now given to banks should be extended to credit unions and other co-operative credit institutions.

A special type of federal government credit should be available to meet disaster situations. The C.F.A. suggests financing these loans by a Federal government agency operating with a revolving capital fund. It is suggested that provincial and municipal governments should be responsible for recommending areas in which these loans should be made, up to a maximum of \$10,000 to individual farmers. Also, such loans should be interest free, and repayable in periods of from three to eleven years, with no payments the first year after the granting of the loan. These loans should be for repair or replacement of buildings, machinery, orchards, drainage and irrigation systems, fences, bridges and livestock lost or damaged because of the actual

catastrophe in the area. Where production losses have followed a catastrophe, loans should be granted for seed, feed, fertilizer, other operating costs and essential living costs, where the need can be established.

The radio and television policy of the C.F.A. contains several points. Aside from general approval of public control of the air through the agency of the Canadian Broadcasting Corporation, its most notable point has to do with the proposal, heard chiefly within the last year or two, for a separate regulatory body which would in effect adjudicate between the rights of the C.B.C. and private stations. The C.F.A. is opposed to such a regulatory party on the ground that, by law, in Canada, there is only one national broadcasting system, of which the C.B.C. and the private stations are component parts. To suggest a regulatory body would be to imply that two systems exist, each deserving of equal treatment. Since the C.B.C. is already responsible to the Department of Transport and therefore to Parliament, the Federation wants no new body supervening between the Canadian Broadcasting Corporation and its service to rural Canada.

INVARIABLY, the Dairy Farmers of Canada, as a member body, brings its annual policy statement forward to the C.F.A. annual meeting for approval. It was approved this year without significant change. The support price of 58 cents per pound for butter was again approved, as well as the sale of surplus stocks of butter in foreign markets at a price lower than was being asked in Canada. Important among the requests of the Dairy Farmers and C.F.A. this year is an increase in the duty on milk powder, cheese and butter coming into Canada from Australia and New Zealand. The argument is that this country cannot compete with Australia and New Zealand in the production of dairy products, because of the very great natural and climatic advantages of these countries. In addition, the special tariff agreement of one cent per pound negotiated with Empire countries in 1931, is badly out of line with prices for all products in 1956. It is, therefore, felt that three and one-half cents per pound now would be a proportionately suitable duty rate. Dairymen are also asking the government through the C.F.A. to control imports from Australia and New Zealand by means of the Export-Imports Permits Act, until the necessary tariff adjustments can be made.

Other points desired by the dairy industry include further exploration of a federal butter program for the aid of institutions, a coupon plan for the increase of milk consumption by needy persons such as widows, pensioners, and the blind; and a program of school milk distribution in which provincial governments would be assisted by the Government of Canada.

A large number of resolutions and matters related to almost any aspect of Canadian agriculture come forward annually (Please turn to page 66)

A Consideration of Some Market Factors for

Beef Cattle and Hogs

ALL market livestock produced by farmers and ranchers is destined to be eaten. The size of the market for livestock, therefore, depends on how much of each kind of meat can be disposed of for human food, and here the factor of greatest importance is population, or the number of people who must eat to live. Next in importance, where beef and pork are concerned, is the ability of a large number of people to buy as much meat as they would like to eat; and the willingness of people to choose beef or pork in preference to other high animal protein foods,—poultry, eggs, cheese or fish—, is likewise an important consideration. Finally, the prices of beef and pork in relation to each other, not only depends primarily on the numbers of each coming forward from farms, but also determines, to some extent, the amounts of beef and pork that will be chosen by housewives for their families.

The Size of the Market. Canada's population as at June 1, last year, was 15.6 million people. During 1955, these 15.6 million people purchased 1,958,460 head of cattle and approximately 5,200,000 hogs. Such total figures, however, are not sufficient. The four western provinces contained only 27 per cent of the population, as compared with 33 per cent for Ontario alone, 29 per cent for Quebec alone, and 21 per cent for the four Atlantic provinces. In other words, 73 per cent of the Canadian population live in eastern Canada.

Where Cattle and Hogs are Produced. In western Canada about one-quarter of the population produces 46 per cent of the hogs and about 60 per cent of the cattle. The two provinces contributing the most hogs to the market are Ontario and Alberta. Curiously enough, Ontario with 33 per cent of the population supplies 33.8 per cent of all market hogs, of which about 32 per cent are Grade A. Alberta, on the other hand, with about eight per cent of the population, supplies 28 per cent of the hogs, of which about 19 per cent are Grade A. The same two provinces are the largest producers of cattle for the market. In total, eastern Canada produces less beef and pork than it consumes, while the three prairie provinces constitute the surplus producing area. Any net excess of marketings over consumption must be exported—nearly always to the United States.

Cattle Numbers. At June 1, last year, Canada had 10,239,000 head of cattle, of which about 3,201,300 head were reported as beef cattle. Marketings during the year amounted to



Nearly one-third of Canada's 10,239,000 head of cattle last year were beef cattle. Marketings totalled 1,994,827, or 2.7 per cent more than in 1954. [Guide photos]

1,994,827 head or 2.7 per cent more than in 1954. In the United States, cattle population was something over 95 million head; and in both countries cattle numbers were approaching, or had reached, the peak of the present cycle in cattle numbers. Always in the past, the top of the cycle has meant a substantial price drop, a subsequent lowering of cattle numbers and a gradual price improvement. Now, a new factor has appeared: For the first time on the North American continent, Canada and the United States have reached another peak in cattle numbers with enough human population to eat all of the beef that has been produced. The population in both countries is still increasing quite rapidly, and the question is whether there now will be the same incentive to reduce cattle numbers much below the peak of the cycle which has always existed in the past, or whether prices will tend to firm up under a much more moderate reduction.



Spacing out the marketing of feed cattle during spring and summer can reduce the sharp decline in prices through greater marketing in the spring.

Last year, in Canada, 5,910,584 hogs were marketed. Of these about 1,127,000 were in excess of the requirements of the four western provinces.

Weekly Marketings. In 1955 the average number of cattle killed weekly under Federal inspection was 32,733 head. Of these, an average of 11,570 head, or 35 per cent, graded Red Brand (A), or Blue Brand, to make up 35 per cent of the total inspected kill. In December, however, the number of reds and blues delivered weekly was down to 10,000. Competition was keen for the smaller numbers and a price spread developed between Toronto and Chicago markets, which allowed 5,000 head of American cattle to come in over a cost-of-shipping hurdle of about \$3 per hundred pounds.

Hog marketings averaged 113,780 in 1955, through inspected plants. By quarters, the lowest weekly gradings

were in the third quarter and averaged 98,327. This compared with an average of 129,441 hogs weekly during the October-December period.

Feeder Cattle. Feeder cattle and calves on public stockyards last year totalled 317,844, which compares with 297,060 in 1954. In addition to this number, it is generally believed that a considerably larger number of cattle than usual have gone on feed in western Canada, without going through a public stockyard. If this is true, and if marketings are not very carefully spaced out during the spring and summer months, the usual heavy marketings of fed cattle in April, May and June could force prices to decline sharply, because the excess number would be forced on the U.S. market and Canadian prices brought down to the equivalent of U.S. prices.

Cattle Exports. In 1955, 10,882 head of beef cattle were exported for slaughter, plus 5,972 feeders, making a total of 16,854 head. In addition, 9,000,757 pounds of beef, the equivalent of about 19,513 head of cattle, were also exported. This brings the total beef cattle equivalent of exports last year to 36,367 head, or no more than 1.8 per cent of total marketings, exclusive of total 39,444 dairy cattle exported. These figures mean that there were never enough surplus cattle on the market during the year to force Canadian prices down to the equivalent of the U.S. market. As a result, good cattle at Toronto (Blue Brand) showed a low monthly average at Toronto during March of \$19.36 as compared with the highest monthly average in September, of \$19.86. These prices suggest that producers marketed cattle in quite uniform numbers throughout the year in 1955.

Hog Exports. Canadians purchased an average of 102,761 hogs weekly last year, or a little over 90 per cent of total marketings. The balance, about 700,000 hogs over the year, were, in effect, exported. Exports, however, actually consisted of 7,858 live hogs, or one per cent of the total, and about 76 per cent (55 million pounds) of pork cuts, plus about 22 per cent (12 million pounds) of canned hams.

Hog Prices. Hog prices were lower in 1955 than in 1954, but remained, on the average, about \$4.15 per hundred pounds dressed weight higher in Toronto than in Chicago. U.S. prices were a bearish factor, but because our exportable surplus remained under ten per cent, it was possible to keep Grade A Toronto prices at an average of \$26.05, as compared with about \$21.90, dressed weight, for top grade

(Please turn to page 66)

Other Uses For Prairie Acres

A review of alternative crops and livestock which can be combined with wheat production to help the Prairie farm economy

by RICHARD COBB

A typical prairie wheat field as the harvest draws near. Some reduction in the wheat acreage would make room for alternative lines of production.

THE prairie farmer, at the mercy of world forces beyond his control, may look ruefully at the wheat stored on his farm, and wonder whether there is any point in adding another crop to it in 1956. His income from wheat depends largely on the decisions of foreign governments, the plans of farmers in other lands, and the unpredictable movements of international trade and finance. But he is not altogether powerless.

Some have proved already that he can become less dependent on his wheat crop, and it is the purpose of this article to point out the alternatives, rather than to tell him what he ought to do. It is a choice that only he can make, for he alone knows all the circumstances on his farm.

It should be made clear, however, that those who can produce high protein bread wheat economically, on account of climate and soil, would be foolish to abandon wheat altogether for alternative crops and livestock, which they may not be able to produce nearly so well.

Before considering the alternatives in detail, it is as well to look at the advantages and the pitfalls. In the first place, it is generally believed that wheat combined with a few alternative products can improve the farm cash situation. This type of production recognizes that there are variations in markets, encourages high yields by maintaining soil fertility, and provides year-round employment in some cases. Control of weeds and erosion also fits into the pattern, and marginal land can be brought into profitable use. Getting the best out of the land will help to reduce the gap between farm costs and incomes, and in addition to the immediate cash benefits, alternative crops and livestock keep farms in step with increases in population and new export markets.

THE disadvantages of launching into new lines of production are that the inexperienced may find themselves committed to increased costs without adequate returns, or the farm can degenerate into a hodge-podge of little enterprises which do not pay. There is also a danger of overproduction creating new surpluses, in oil crops and livestock, for example, and farm buildings and water supplies may not be adequate for the new demands made on them.

In spite of these problems, the grain farmer can go ahead with new programs now if he does not devote large acres to untried crops and livestock at first, but is content with moderate returns until he is more experienced. The Guide to Farm Practice in Saskatchewan says that assuming there is a main line of production, which would be wheat in most cases, the secondary enterprises should be limited to one, or only a very few, built up carefully and adjusted as often as necessary. In that way it is possible to avoid having a little of everything, and not much of anything.

RECOGNIZING the widely differing conditions in different areas, The Country Guide sent a questionnaire to nine experimental farms at Brandon, Morden, Indian Head, Melfort, Scott, Swift Current, Lethbridge, Lacombe and Beaverlodge. All appreciate the farmer's problem and replied promptly, giving us the benefit of their experience. The remainder of this article draws extensively on this material, and embodies the area recommendations to the extent possible in a limited space.

Forage crops, in the view of all the experimental farms consulted, are capable of *some* increase. There may be a danger of overproduction in northwest Alberta, and improvement of pasture and roughage is the chief need in northwest Saskatchewan, but there is room for more forage crops in most parts of the Prairies.

A good reason for seeding grass and legumes is that they benefit the soil. Restoring fertility and fibre, checking erosion, and cleaning up weeds are as important in terms of increased production to the confirmed grain grower as to any other farmer. This seems to be a good time to divert some acres, preferably in rotation, to these purposes.

The example comes to mind of a farmer in North Dakota, with a total of 640 acres, including 150 acres of tame grass pasture. Each year he seeds 25 to 30 acres to grass, and returns a similar acreage to crops. Instead of plowing, his only preparation for the seedbed is stubble mulching, with commercial fertilizer added for crop production. He claims that he gets seven to eight more bushels

of wheat per acre on land that has been in grass, compared with land that has not, and the seedbed preparation is the same in both cases.

FORAGE seeds are another alternative crop for the Prairies although the demand for some varieties is limited at present, and it is essential to have clean land. Forage seeds are recommended for Manitoba, most parts of Saskatchewan, except the northwest, and to a limited extent in Alberta, with emphasis on new varieties in the central area. In poor market years, the crop can be used as feed.

The forage crops for Manitoba are sweet clover, alfalfa and grasses for feed and seed. In Saskatchewan, more grass and legumes, in black soil areas of the southeast; and seed production of grasses, red clover and alsike, with sweet clover for feed and soil building in the northeast; grasses and alfalfa in the southwest; and improved roughage and pasture for those depending on cattle in the northwest. The Alberta recommendations are grass, clover and alfalfa for forage on irrigated lands in the south and in the foothills; grass and legumes on mixed farms and to benefit the soil in the central area; and deep-rooted legumes are especially suitable in the northwest.

Livestock are needed to dispose of forage crops, and are also a means of turning surplus grain into cash. Because of present marketing conditions, it would be a mistake to encourage unlimited increases in livestock. However, livestock are an attractive alternative to straight grain production, and there should (Please turn to page 40)



[Guide photos

Livestock have a place in the prairie farming pattern, but a good water supply is essential.



[Guide photos

This prefabricated loafing barn at the Thompson farm costs much less than the conventional type.

Prefabricated Plywood LOAFING BARN

Sid Thompson, Alberta farmer, finds his prefabricated plywood barn more economical and much easier to build

by C. V. FAULKNER

ABOUT nine o'clock one morning last fall, Sid Thompson, a farmer near Bentley, Alberta, heard a heavy truck toiling up the steep hill by his place. In a few minutes the big trailer job pulled into the yard, followed by a smaller truck carrying tools, nails, and a gang of men. His new barn had arrived right on schedule.

Sid opened the gate, and led the way to the spot where he'd finished digging about 14 holes the day before, each from four to five feet deep. Then he stepped back, and watched the 32 by 64-foot prefabricated loafing barn take shape before his eyes, perhaps not too conscious of the fact that he might be pioneering a new era of farm building practices in the West.

By nightfall, the walls and rafters of the barn were up, and the walls painted. Two days later the

job was finished and Sid was tossing bedding in, ready for his cows. That's a fast piece of work when you consider a hog house on the same farm took a carpenter and helper all summer to build. But it was by no means a record for prefabricated buildings. Being the first one of its type, there were a few bugs to iron out, such as having to pour cement footings in the holes, because of the soil type. Also, in future, all parts will probably be prefabricated in the factory. Given a little time to perfect the process, it is expected that the same type of barn will be erected by six men in one day, or even less.

Sid Thompson's barn is the result of an idea, put forward by Merrill Muttart, Edmonton industrialist, that the principles of prefabricated housing could be applied successfully to farm buildings. He assigned research engineer Gil Rekken to look into the matter. The first thing Rekken did was visit the universities, experimental farms, and various agricultural extension groups to learn the types of farm structure now being recommended for the western prairies. Here he learned of the farm building plans available through the Canadian Farm Buildings Plan Service initiated by the National Committee on Agricultural Engineering, a federal-provincial group composed of agricultural engineers from universities and departments of agriculture across Canada.

"I found that a new concept of housing livestock has gained the backing of these people who are in the know," Rekken stated, "and that is the principle of loose housing. It's no longer recommended that animals be tied up in their quarters. They get too dirty that way, and blood circulation is restricted, which reduces the animal's ability to produce heat. We decided that if we were going to apply our prefabrication methods to farm buildings,



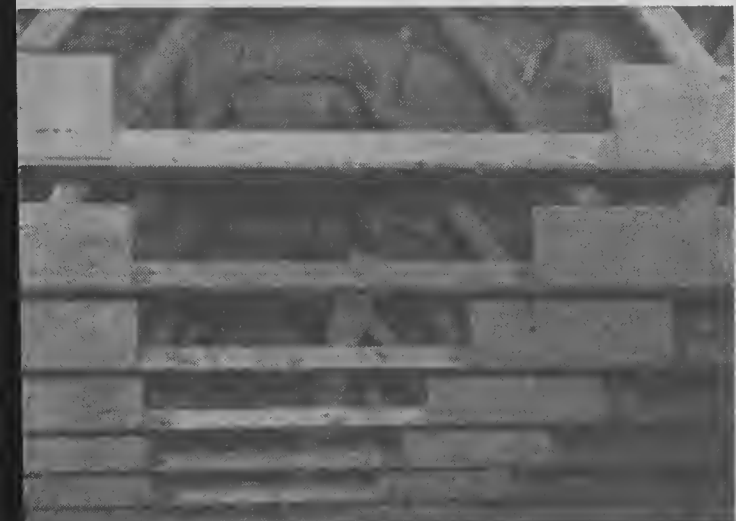
Sid Thompson inside the barn. Note chemically treated pole, splash boards and plywood panels.

we'd confine ourselves to the new types—conventional barns appear to be on the way out."

C. A. Cheshire, extension engineer for the Alberta Department of Agriculture, Edmonton, puts it this way: "Stanchion barns are a symbol of yesterday. Some farmers still build them, of course, but mainly because they *look* like a barn. But, believe me, they're a mighty costly showpiece. Just compare these costs: The older type barns range from \$250 to \$600 per animal, while loose-housing units run from \$125 to \$250 per animal. Now that we can pressure-treat poles to last 50 years, the pole barn is the answer to rising costs."

When queried about prefabricated farm structures, Cheshire had this to say, "I think we'll see more and more of this trend as time goes on; and that applies to farm dwellings too. That way the farmer only buys the material he uses, and no special labor or equipment is involved."

IT was as a result of checking with his agricultural engineering service that Sid Thompson got the idea of trying a prefabricated barn. The Thompson barn is a modification of C.F.B.P.S. plan No. A-15401024. It is a trussed-roof, pole-type cattle shed, with no poles in the floor area to restrict stock movement, or interfere with manure removal. In place of the open side, there is a fourth wall, containing a removable door of rough siding. Roof trusses, placed at four-foot intervals, are able to carry a tremendous load (Please turn to page 64)

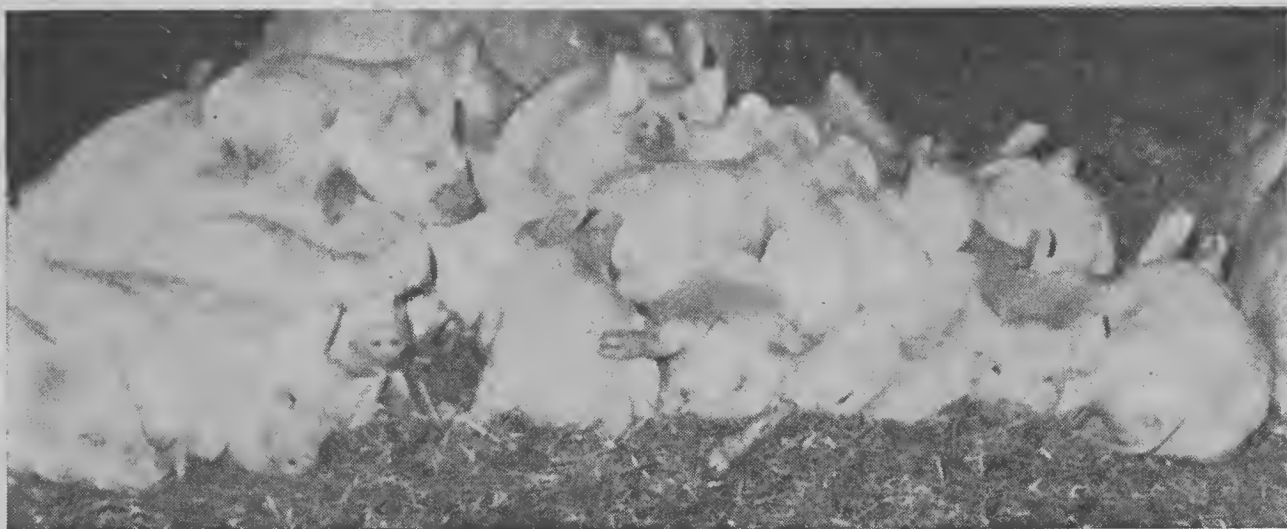


View of the trussed roof construction based on the Canadian Farm Buildings Plan Service design.

A HOG-POULTRY COMBINATION

Market hogs and broilers combine well on this Western Ontario farm

by DON BARON



These youngsters are healthy, and look it. To get two litters each year from about 70 sows, and market 60 to 75 per cent Grade A hogs is to more than double what average hog producers have done in Canada.

ART WEBB was feeding off more than 1,000 hogs a year from his 70-sow swine herd six years ago, when he decided that such specialization was risky. That's why he bought a group of mixed chicks for his farm south of Paisley, in Bruce county, Ontario.

He planned to sell the pullets as broilers, and run the cockerels through to roasting size, but when he sold the lot on a strong broiler market and tallied up his profits, his plans changed. He cleaned out his henhouse, put in more broilers, and now turns off 80,000 birds a year. He has maintained the hog enterprise, too, and feeds a carload of western steers each year, as a sideline. Now, the farm books could show an annual output of something like 220,000 pounds of poultry meat a year, 160,000 pounds of pork and another 20,000 pounds of beef. One could safely observe that "that ain't hay."

Actually, it represents a long leap from his position at 18 years of age, when he returned to the home farm after "working out." A sharp mind for figures, a restless impatience to get things done, and careful consideration of hired help, to the extent that his four full-time men are cut in on farm profits by means of a profit-sharing scheme, are some of the reasons why the Webb farm has gone ahead so fast.

He can tell you, to the bird, how his losses have been with the broilers, that his feed conversion has been a healthy 2.67 to 2.70, or that every day his huge stock is eating up about \$450 worth of feed. The latter item alone could drive a worrying man to ulcers and a skim milk diet, in no time. Nevertheless, much of the farm enterprise has been built up since 1940, when Art experienced a heart attack. He must take it easier now, but that doesn't mean sleeping his life away.

His recipe for the necessary change of pace lies in the kind of old-fashioned family living that was supposed to have been squeezed out of today's homes by high-powered motor cars and, more recently, by television sets. Mrs. Webb, school-aged

sons Lloyd, Clarence and Bryan, pretty Meneke Koselag, a new Canadian from Holland who lives with them as one of the family, and Mr. Webb himself, all have a love for music. Their living room is crowded with a piano, accordion, several kinds of horns, and a xylophone, all in ready reach for an hour of music. On winter evenings it is customary for the family to head for the living room and set the house vibrating with the strains of old favorites. Or some of them may be at Paisley, playing with the newly formed Boys' and Girls' Band.

On summer evenings, if they aren't playing, they may be swimming in the new, concrete-lined and grass-margined swimming pool beside the house. The pool provides relief from the dog days of August, and also maintains a reserve of water for fire protection.

BUT let's have a look at the farm itself. Its theme might best be seen in the feed mill just back of the house, for every animal or bird on the place is fed a balanced ration. Despite his pride in the mill, Art doesn't try to mix poultry feed. He admits that "commercial feed manufacturers can do a better job of the new high-energy rations." He is getting good feed conversion, gets rid of birds averaging 3.6 pounds in nine to ten weeks, and says that with such performance, he can pay for the feed and still have a profit.

But the feed mill—equipped with elevators, grinders and a one-ton mixer—is busy turning out pig feed. Tacked up near the mixer is a list of a half dozen different rations. Art buys feed grains from the West by the carload, and this year has found grain corn from southern Ontario a good buy too. He grows his own alfalfa, which is cured as hay, chopped, and added to the rations. He buys concentrates to balance the rations. His own truck hauls the grain to the mill, or the mixed feed to the different barns on the farm.

To maintain his high volume of livestock without a high overhead in buildings, requires a skilful job of juggling accommodation. For example, chickens



For Art Webb good ventilation means more profit and he uses fans as a supplement to the windows.

are started in the three-storey brooder house, 3,000 birds on each floor, as well as on a floor above the farrowing pen, which handles another 4,500 chicks. In the summer, the birds are moved, when five weeks old, to other barns around the yard—probably abandoned barns that have been hauled home. In winter, however, the chicks would be unable to survive in these drafty quarters, so his capacity is reduced.

Although farrowing 140 litters of pigs a year, he has successfully skimmed on accommodation here too, with only ten farrowing pens. When forced to make way for incoming sows, several sows can be grouped in larger pens in another barn; and when they are introduced to the new pen together, there will be little or no fighting.

In both the hog and chicken pens, Art has developed a system of keeping records that makes it possible for him to stroll through the buildings at any time and see exactly what is happening. Nailed above every farrowing pen is a card. Printed on it is a list of every practice affecting the pigs, and the men mark the dates on which they are carried out. It's the same in the broiler houses. In each pen is a card for recording progress made by the birds.

HERE is the schedule laid out for the swine. Sows run on pasture in summer, but they normally get about seven pounds a day of a sow ration, too. In winter they are sheltered in a barn, and eat off a concrete platform outside. From five days before farrowing until ten days after, they are fed a bulky ration to bring them to their milk gradually. By then, they are coming to full feed, and with that care, the sows average over nine pigs per litter.

The young pigs have their black teeth removed at birth, and are given iron every week for seven weeks. They are inoculated at three, five and seven weeks with a mixed bacterin. When a couple of weeks old, the pigs get a pelleted baby-pig ration, and four weeks later they go on a pelleted starter. They are weaned at nine weeks, and wormed at 12 weeks.

The pigs are then sorted for size into pens handling up to 75 or 100 animals, where they are self-fed. If they show signs of getting too fat, Art can cut back the ration by adding more alfalfa to the mix. As they approach market size they are weighed. Those that are too light are marked and will be ready the following week. Weights are considered so closely that when hog prices are low and the government premium becomes a larger proportion of the final returns, he can come close to 75 per cent A grade carcasses. But if prices are high, he will adjust his weights, allowing the pigs a few more pounds. This cuts his percentage of grade A's to 60 or 65, but pays off in more pounds of pork to sell.

Art has always stayed with Yorkshire pigs, buying good purebred boars (Please turn to page 68)



All morning Lummis had had a growing fear, an instinctive presentiment of wolves stalking him.

Up the Keewateena Trail

Man's vengeance, faster and fiercer than northern cold or blizzard, lay in wait for young Holt Lummis. His lonely and desperate strategy was based on memory of blurred racquet tracks in the snow along the old trail

by WILLIAM BYRON MOWERY

HOLT LUMMIS, stretched out in his warm sleeping-bag half-buried in a snowdrift, was awakened by the strident *whee-wheetaun* of a moose-bird in a spruce overhead. Morning already—it seemed he had dropped to sleep scarcely three seconds before. Unbuckling the flap, he raised his head and looked around.

Following the savage blizzard of yesterday and yesterday evening, an intense still cold had settled down. Except for the solitary moose-bird, the spruce drogues and balsam bush were frozen and lifeless and silent as a tomb. Low in the southwest horizon hung two suns: coppery-colored, wan, frozen balls, so absolutely alike that Lummis had to stare a full minute before he decided which was sun-dog and which was the real February sun.

"Son, it's br-rr-rr cold!" Lummis exclaimed. "It must be—"

He raised his head a few inches higher and spat by way of experiment. The spit crackled as it hit the snow. He spat a little farther, it crackled in the air.

"Between sixty and sixty-five below, or nearly a hundred degrees below freeze, according to that thermometer. But even so this is better to travel in than a woolly-whipper at twenty-five below."

One glance at Lummis would have been sufficient to mark him as neither trapper, nor oil- or gold-pro prospector, nor bush-losing fur-huckster—that sore thorn in the side of the big companies. His hair was a shock of brown curls, his grey eyes clear and kindly, his forehead high. The rest of his features were hidden by a stubble of beard, for in that savage cold his face had not known a razor in nearly two months.

At thirty years of age Holt Lummis, mining engineer, rough-and-ready geologist, found himself "well heeled" because of a daring success with an abandoned lode shaft down in the Kootn'y—success due not to luck but to courage, to a brilliant mining coup, and to what he called "hardrock reasoning." And yet he still quested for some intangible he-knew-not-what, seeking it now in the welter of oil speculation in the Fort Norman country.

His rifle lay on the lower branches of the spruce overhead, but almost within arm's-reach, so deep was the drift. A tiny tree-avalanche of snow had tumbled down and put out his fire—a handful of ash-heart wood which ordinarily held its protecting glow all night. Not more than six steps to his left ran a blazed foot-path, the Keewateena Trail, an ages-old trade route of the Dogribs trading west to the Loucheux and Slaveys and Yukon-iho-tanneh; taking copper and musk-ox robes and bringing back splendid dogs and ivory weapons—and young wives.

As he looked at it through a screen of balsam boughs, he saw that someone heading northwest had passed along the trail during the night. The blizzard had whipped the tracks completely shut so that anyone looking

straight down at them could not see them at all; but to one glancing along at snow-level the beavertail racquet-marks showed up plainly—a row of mottled shadows on the trail.

"Humph!" he snorted. "It's a good thing that passer-by was a human and not a wolf-pack—with my fire out and me sleeping six cords an hour! But *leve, leve*, son, and get on the trail! If you're going to make Fort Norman by the Ides of March, you'll

have to put your hind foot in front of your nose and git. Every day and all day!"

The faint racquet-tracks, insignificant and meaningless to him then, faded out of his mind.

HE dressed himself inside the sleeping-bag—a feat which he had practiced to the point of artistry, a very excellent accomplishment when the thermometer shows a hundred degrees of frost, and was about to emerge from the bag when he thought he heard a human voice southeast on Keewateena Trail. He listened, sure he was mistaken. Presently he heard it again, clear and unmistakable on the taut air; a conversation between three or four men.

He waited seven or eight minutes, hearing the voices all the time. The party was drawing nearer, was coming up the trail at a brisk walk, for presently he could make out the whine and squeal of several racquet-beams on dry snow. Still the party was out of sight—though he could see six hundred yards down the trail.

"Must have heard them a mile and a half away!" he figured.

Some five minutes later when the party did burst out of a balsam clump and come suddenly into sight, Lummis salt bolt upright in astonishment. They were four giants sixty feet high, muffled in huge furs, carrying rifles as long as telegraph poles, striding along as if in seven-league boots. One of them was smoking a pipe as big as a barrel, the smoke from which fell in frozen clouds to the ground. They were walking not on the snow but up in the air, on one of the lawns of hoar frost fog.

It was perhaps this curious optical illusion, common enough in the Strong Woods on intensely cold mornings, which

(Please turn to page 57)

Illustrated by Clarence Tillenius

...it's the healthy animal

not just the "normal" one

that really pays off!



Your cattle can *look* normal, and still be unhealthy and not make maximum gains.

The reason is "sub-clinical" disease—disease you can't *see*. It can be *there*—sapping the animal's vigor, using up part of the feed, holding down weight gains.

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Under the Peace Tower

by HUGH BOYD

SO much is being said about the wheat marketing problem in Parliament these days—and not a little is being done about it, too, whether adequate or not — that it's rather hard to think about anything else. At the time of writing, the main debate on policy had not begun, but it might be said, at any rate, that in late January there was quite a confusion of tongues, and a tendency on the part of some non-prairie members to mutter privately (if not in public) about a certain \$65 million payment in 1951.

The answer, that Canadian wheat farmers, unlike those against whom they must compete in world markets, have been relatively unsubsidized hitherto, and that government assistance has certainly not been withheld from several other segments of agriculture, will no doubt be given forcibly enough before the session is much older.

However, there are some matters of concern to farmers in East and West alike that seem likely to reach Parliament sooner or later, particularly the anti-combines law, and the future of the railways. I mention these because they have been brought up more than once lately before the Gordon Commission on Canada's economic prospects.

At Montreal, the Commission heard two spokesmen of the pulp and paper industry attack the Combines Investigation Act as unrealistic and unfair to business men. The fact that one of the witnesses, Mr. R. M. Fowler, will himself soon be actively engaged as the chairman of a royal commission on television is interesting, because there was certainly little of the dispassionate quality of a royal commissioner in Mr. Fowler's brief on the combines law. Indeed, it's to be questioned whether Mr. Fowler got all his facts straight, and as one royal commissioner addressing another, this makes for a somewhat curious situation.

ONE point will do for illustration. The spokesman of the Canadian Pulp and Paper Association complained of the powers given to investigators under the Act to examine the books of companies suspected of being parties to a combine in restraint of trade. He drew the Gordon Commission's attention to a recent statement by the Minister of Justice, Mr. Garson, that more than 90 per cent of the cases investigated are dropped without report or further action.

This means, said Mr. Fowler, "that nine out of ten of the people involved have had their private papers rifled and their privacy invaded without, as it turns out, any justification and often at great and irrecoverable expense and disruption of their businesses."

Now, this is a serious charge, for it can be taken for granted that Parliament never intended the anti-combines law to work in such a way. But I think it's possible before this session of Parliament is much older that it will be explained, with relevant statistics, that the dropping of nine out of ten



anti-combines investigations doesn't mean that all those nine had their private papers rifled and their privacy invaded. Or anything like all.

Another witness has assailed the anti-combines law on the ground that a combine might be shown to operate to the benefit of the public, and so should not be exposed to prosecution.

Well, the Combines Investigation Act (and it was overhauled by Parliament in 1952) still says that the test is whether a combine operates to the detriment and against the interests of the public, and at the same time a section of the Criminal Code forbids "undue" restraint of competition in trade. In past decisions, the courts have concluded that Parliament meant to preserve competition in the interests of the economy at large, and that anything interfering substantially with competition in a particular market was to be taken as "undue" restraint.

AN example of the very opposite of a restraint is to be found in the current efforts of a major automobile enterprise in the United States (General Motors, which of course has Canadian interests as well) to make a low-cost lightweight passenger train for use by another form of transportation. Others are working in the same field, and the auto makers, who already turn out diesel locomotives used in both the U.S. and Canada, apparently feel that as a matter of straight business they can profitably get into it too. The net result could well be a cut in costs in railway passenger operations, at least on some lines; and anything that helps the railways is likely to be reflected in other parts of their operations.

The Gordon Commission has been hearing from Canada's major railways, too. They agree that there is too much regulation in comparison with what is imposed on their competitors—particularly on the trucks—and that it's time for a drastic overhaul of the rules by Parliament.

The C.P.R. once again brings up the matter of the Crow's Nest rates on grain. The C.N.R. carefully avoids this stick of dynamite, but does suggest a radically different set-up whereby freight rates in general would be thrown open to the ordinary processes of competition. Shippers feeling that the railways still enjoyed a "functional monopoly," could apply to the transport board to have themselves excluded.

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Science And the Farm

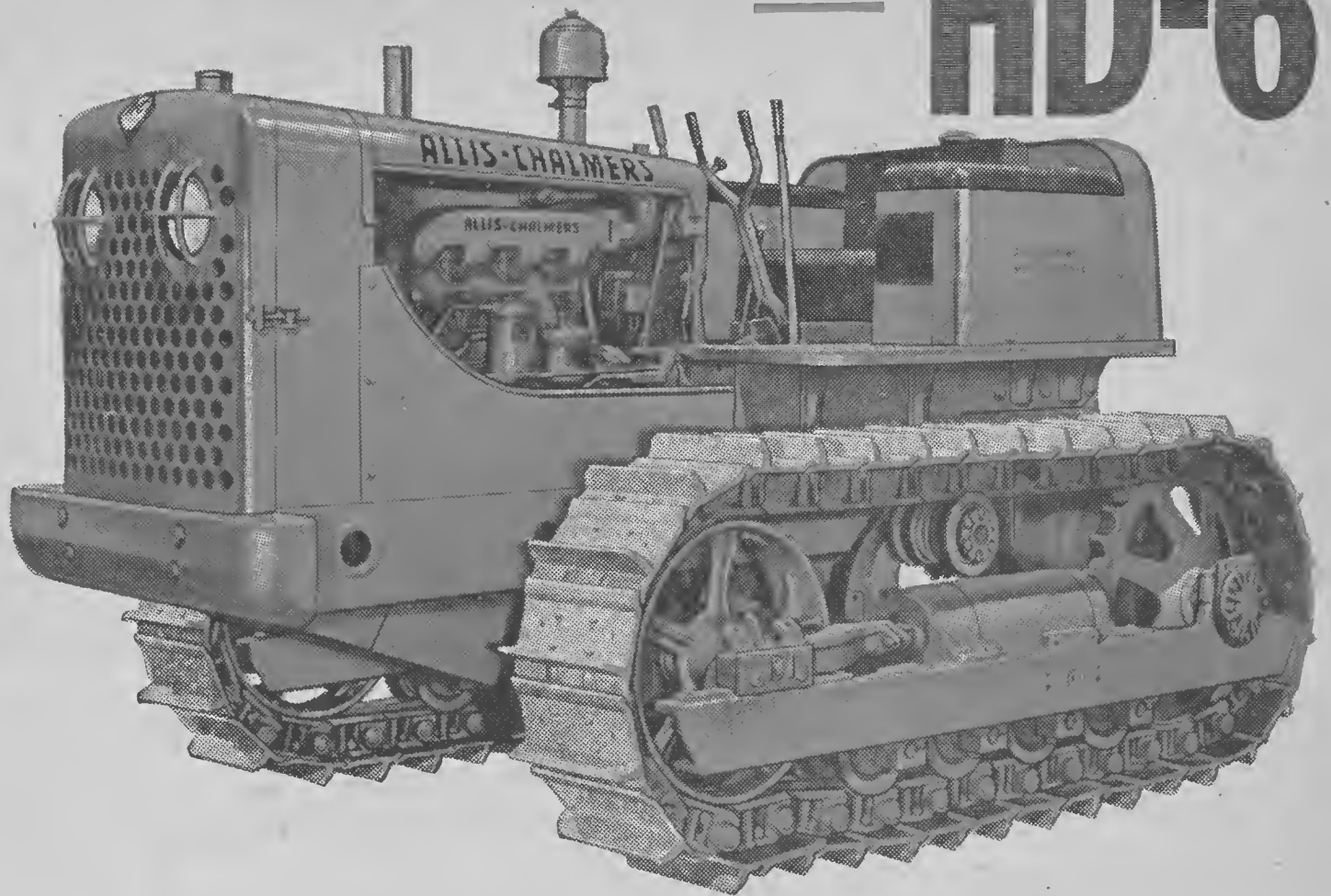
The brilliant colors of autumn leaves are wrongly credited quite frequently to Jack Frost, according to a University of Wisconsin botanist. Jack Frost doesn't have anything to do with it, said the botanist. "In fact," he said, "a severe early frost can actually decrease the amount of red coloring, which would normally form in many leaves." European trees lack the gay colors of many North American varieties, because they do not have any Indian Summer. Winter sets in more gradually in Europe, and a separation of the leaf cells from the cells of the branches, occurs much later. This separation prevents products manufactured in the leaves from going into the trunk; and when Indian Summer, or warm fall weather comes after separation, manufacturing continues in the leaf by the process of photosynthesis. The sugar that accumulates is turned into a red pigment called anthocyanin. ✓

Females beware! Nature is full of surprises, and scientists just love to discover them. Now they have found a way of doing away with the need for females—at least of a certain species of toad. Two scientists at the University of Iowa reported not long ago that they had been able to change male toads of this species into egg-laying females, without depriving the renegades of their male hereditary constitution. What these curious scientists did was to place the male embryos under the influence of a female hormone, which made the male toads behave like females. Unfortunately, all of the eggs they could lay would develop into males only, when fertilized by normal males. To secure a new all-male generation the scientists have only to add a little of the female hormone to the water of the aquarium, to get a new crop of potential mothers. "Thus," they say with glee, "the true genetic females can now be dispensed with." ✓

New cattle diseases are appearing in at least 20 states in the U.S. Collectively called diseases of the "mucosal complex," they are called by such names as viral diarrhea, mucosal disease and rhinotracheitis. It has been discovered that the same disease in different states is not the same, and none of them produces immunity to any of the others. Cattle suffering from the new diseases eat reluctantly and lose weight. The death rate is variable. Highly infectious, the agents responsible for these diseases have not been identified. ✓

Ryania, a natural insecticide tested by the U.S.D.A. in West Virginia, appears to be friendly to the apple and therefore to the apple grower. It comes from a tropical shrub, *ryania speciosa* and controls the codling moth; is selective between harmful and helpful insects; does not injure plant tissues; is comparatively safe for man and animals; is exempt from residue tolerance limitations on the fruit; and unlike standard insecticides, favors the beneficial rather than the harmful mites found on the apple. In one test, 3,741 apples from a treated area were checked and only one codling moth entry was found. ✓

the new HD-6



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new Allis-Chalmers 344-cubic-inch displacement diesel engine with fuel-saving Tornado Turbulence and follow-through combustion.

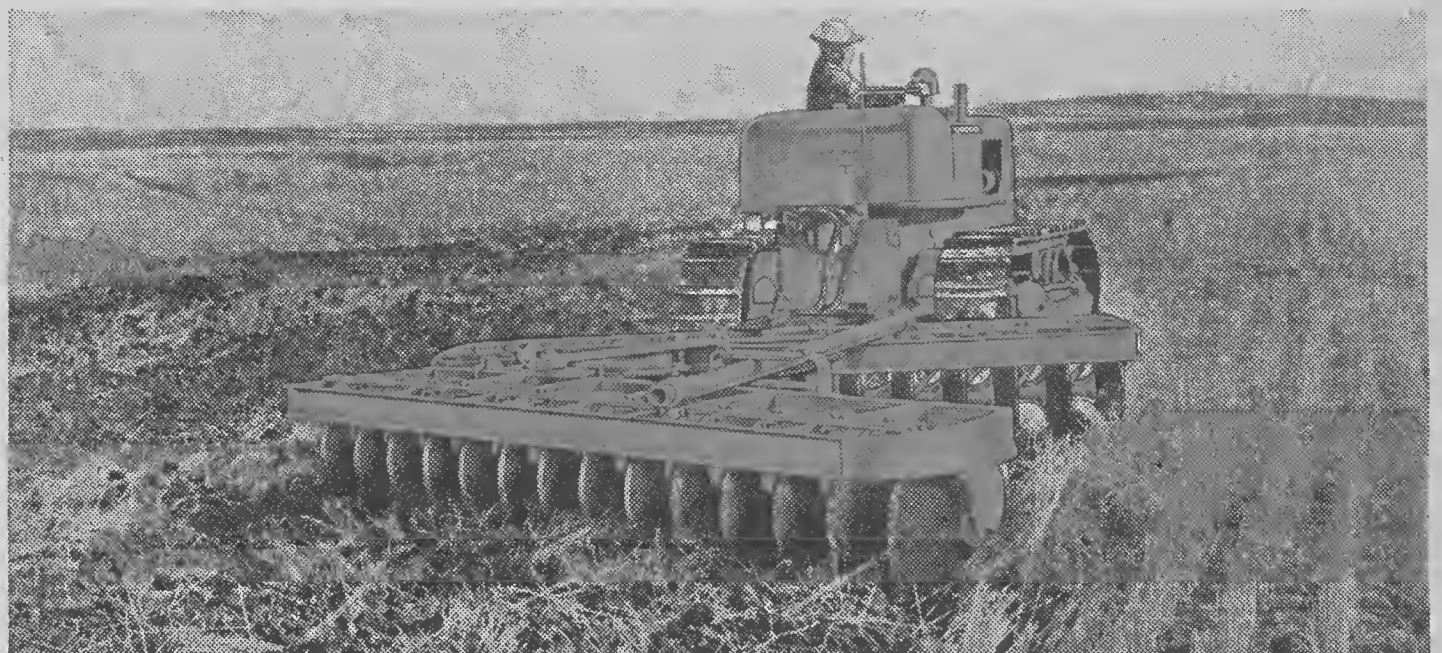
new long-wearing ceramic-type master clutch.

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plus 1,000-hour lubrication for track assemblies, rubber engine mountings to cushion vibration, all-steel box-A main frame, high ground clearance with double-reduction final drive, and long-wearing, through-hardened True-Dimension tracks.



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THE HD-6 IS A NEW TRACTOR . . . incorporating the most advanced basic design, with a wealth of new engineering features that bring higher standards of power, strength, balance and operating convenience to crawler tractor farming . . . all-round performance unequaled in its power class. Shown here with matched Allis-Chalmers deep tillage equipment.

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This letter was written by Mr. Abe Reimer, Hussar, Alta., to Chipman Chemicals Limited:

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NEWS OF AGRICULTURE



[Climo photo]

New Dairy Farmers of Canada directors: Rear, A. K. Barnsley, Sask.; R. F. Smith, Alta.; G. R. McLaughlin, Ont. Front, A. Mulligan, P.E.I.; G. Lowry, Ont.

Potato and Apple Supports

A STARCH diversion program, announced by the Agricultural Prices Support Board, is designed to assist potato growers by assuring them a minimum return of one dollar per barrel of 165 pounds for Canada No. 1 grade potatoes. The New Brunswick and Prince Edward Island Departments of Agriculture requested the program.

Apple growers will be provided with a support price on the basis of a minimum average return to producers of one cent a pound, delivered at plant or warehouse, for Canada Fancy or better grades of main dessert varieties produced in 1955.

Nova Scotia was the only province to request action by the Agricultural Prices Support Board, but if a sufficient number of apple growers in commercial growing areas of other provinces are interested, they can apply through their department of agriculture for a similar guarantee to be considered.

Butter Handling Simplifies Spreading

MAKING butter easy to spread, even when it is cold, would be a big advantage in meeting competition from margarine. It now appears that two dairy scientists at the University of Wisconsin, V. R. Huebner and L. C. Thomsen, have had some success in solving the problem.

The key to easier spreading, they say, is in careful handling of cream and butter during manufacture and storage. The butter should be cooled below 15 degrees F., as soon after churning as possible. This may mean packaging the butter directly from the churn, and cooling it in small packages rather than in large blocks.

It is also important, in making winter butter, to cool the cream from 90 degrees to holding temperatures before churning, and it helps spreadability if the butter is washed in the churn with cold water, at 38 to 44 degrees, both in winter and summer. Cold-washed butter needs longer

working to reach the proper consistency, and this makes spreading easier.

Alberta Soil Seen from Above

A SOIL survey from the air, covering about 10,500,000 acres, was carried out by the University of Alberta last summer. It took two summers, in 1952 and 1953, to survey less than one-quarter the acreage by pack-horse.

Dr. J. D. Newton, chairman of the Soil Survey Committee, and head of the Department of Soils at the University, says that a survey crew in a helicopter covered areas around Obed, Fort Assiniboine and the Cutbank River, 70 miles south of Grande Prairie, in 1955. Information from photographs, taken earlier, was transferred to base maps, which were carried in the helicopter to help the crew to identify landmarks. The helicopter went down from time to time to allow surveyors to take soil samples and to make notes of the profile of the soil.

The pack trail will still be needed to get more detailed information, says Dr. Newton.

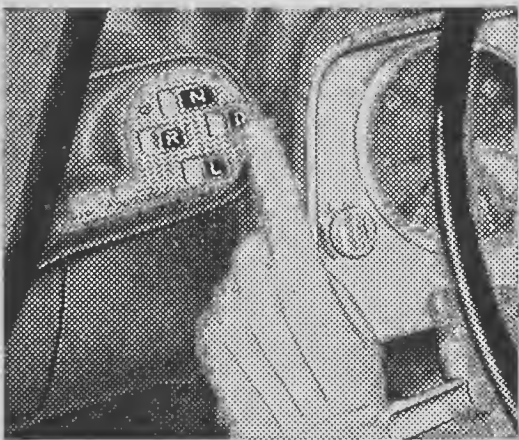
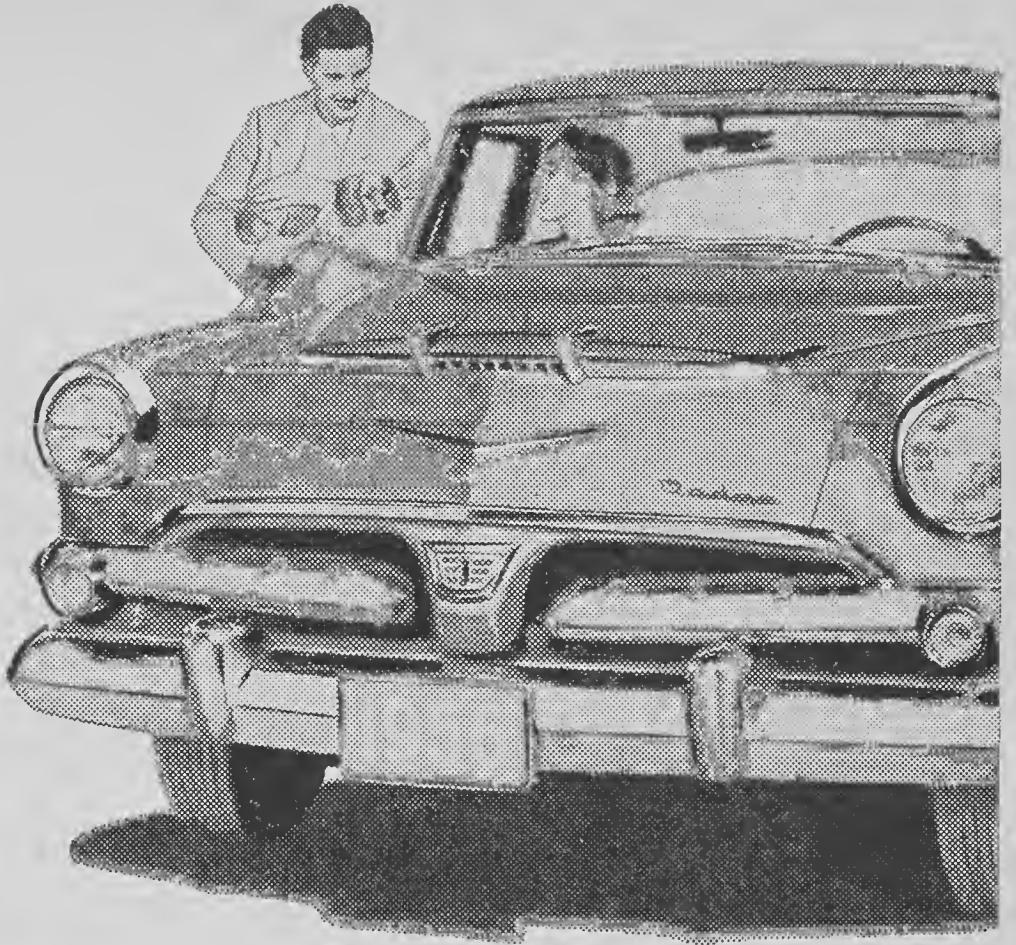
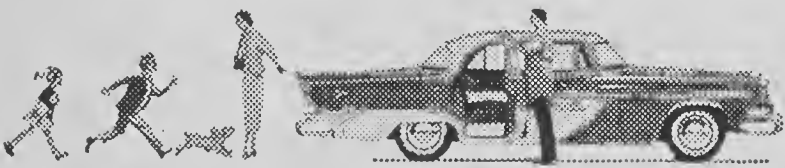
U.S. Needs More Forage Seed

THERE is not enough forage crop seed in the United States to carry out the proposed soil bank program, according to the New York Journal of Commerce. It is estimated that there is enough seed to plant 12 million to 15 million acres, which is the amount of wheat and cotton acreage that President Eisenhower has suggested should be taken out of production temporarily. But this does not cover the additional 25 million acres which it is hoped will be diverted to forage under a more permanent conservation program.

The supply of Ladino clover, sweet clover and alfalfa seed is said to be fair, but red clover and lespedeza stocks are below average, and there is a shortage of brome, wheatgrass and orchard grass seed. Ryegrass and Sudan grass are plentiful.

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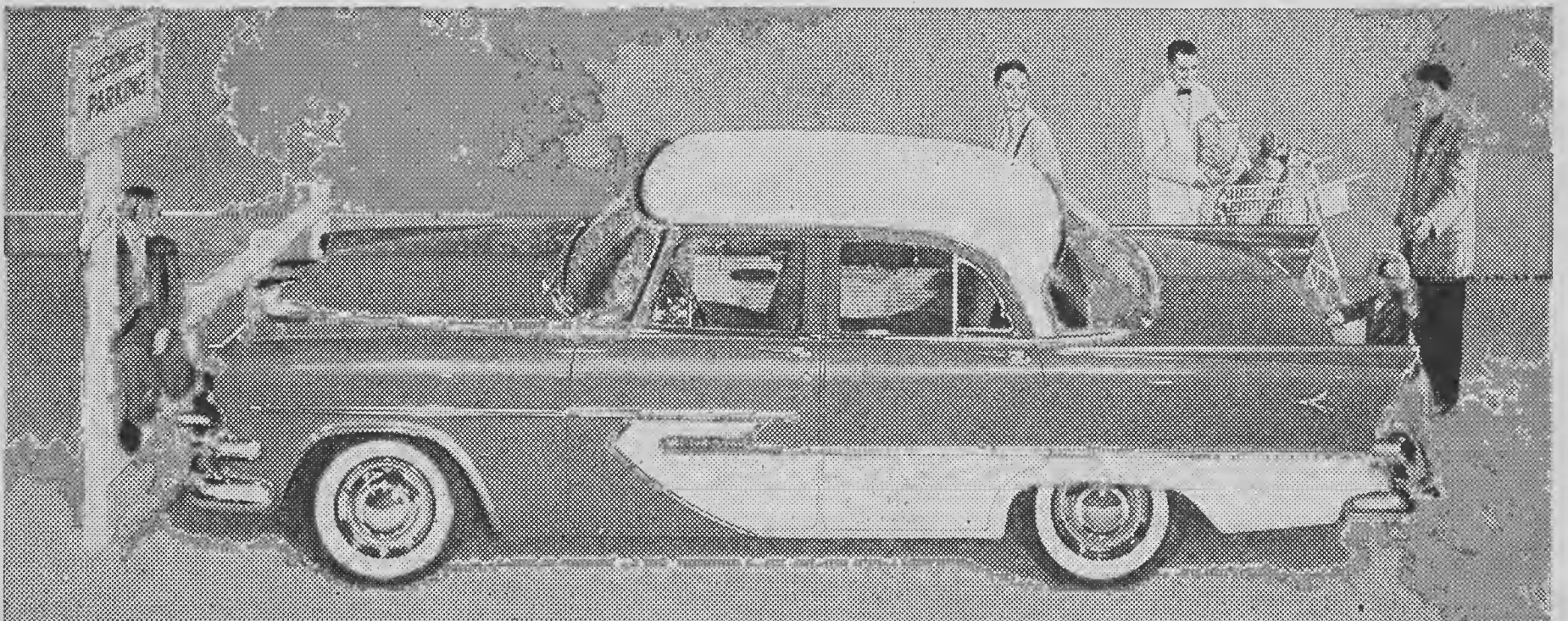
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Annual Meeting The Royal Bank of Canada

**James Muir warns against
pace of consumer buying
and tightness of markets
in commodities and labour**

**Canada can ill afford luxury of group
or sectional parochialism**

Some of the more pressing problems confronting Canada in 1956 were reviewed by James Muir, Chairman and President of The Royal Bank of Canada, in his annual address at the Annual Meeting of Shareholders of The Royal Bank of Canada. One of the more important of these, he felt, was the new inflationary pressure built up during the boom which characterized 1955. While admitting there may be some difference of opinion on the seriousness of the threat posed by the boom, he believed there "are definite danger signs, not so much in prices as in the frantic pace of consumer buying, business expansion, and the general tightness of markets in both commodities and labour."

CONSUMER CREDIT

"Consumer credit, or 'buying on time' is an essential part of our modern economy," said Mr. Muir. "But, like all good things, it can be carried to extremes. For the individual, to live in constant heavy debt is to live in bondage; and the burden of debt is usually the greatest for those who can afford it least: viz., those who need or are attracted by 'no down payment' offers. For the economy as a whole, consumer credit results in the production and sale of durable goods (a form of long-term investment by the consumer) without at the same time a corresponding act of saving. There need be no harm in this provided the consumer loan is itself financed out of saving—the consumer then borrows in order to spread his own saving over time. But if a great rise in consumer loans is financed through bank credit expansion we have an expansion not of short-term, self-liquidating credit but a long-term loan paid back only over a long period, and a consequent expansion of the money supply."

CANADIAN UNITY

While sound economic policy was a factor in achieving national unity and well being, said Mr. Muir, the development of a broad national outlook and the avoidance of regional and cultural parochialism were also of paramount importance. "We in Canada," he said, "are divided by the accident of geography that makes us a long belt, divided into regions with diverse climates, cultures, and economic interests; and with each region feeling the strong influence of our giant neighbour, the United States. The very diversity of regional, cultural, and occupational interests that creates and aggravates our problem makes unity an even richer prize than would otherwise be the case. Ours will be a unity in diversity, with the attendant opportunity to take fullest advantage of the division of labour, itself a product of diversity in culture, in individual talent and skill, in group interest and activity. I firmly believe that this difficult task can be accomplished. There is indeed, encouraging evidence that we have already made great progress: that parochial attitudes and habits of thought are now on the wane in Canada."

NEW "BUILT-IN STABILIZER" FOR FUTURE BUDGETS

"In his budget speech of April 5, 1955," Mr. Muir stated, "the Minister of Finance said:

'I propose to recommend to the house a tax policy and a tax structure that would produce a balanced budget under conditions which represent a high level of output and employment.'

"Now a high level of output and employment is reflected in the figure that measures the gross value of our national production over the year. The new tax policy and tax structure referred to by the Minister of Finance is geared to this gross national product in such a way that if in any year the product falls below a certain ideal level, there will be an automatic budget deficit. If the national product rises above this level, there will be an automatic surplus. And the ideal level of gross national product is apparently defined as the level that would have obtained had employment and the rate of growth of the economy been 'normal' every year since the base year 1953. It may be open to question whether this kind of built-in stabilizer will prove sufficiently strong to produce the desired effect."

Total Deposits have now passed \$3 billion mark

K. M. Sedgewick, General Manager, noted that not only had the assets of The Royal Bank reached the imposing total of \$3,284,143,865, but that deposits had passed the \$3 billion mark, a new high point in Canadian banking history. "Ten years ago our deposits were \$1,888,757,074, approximately 61% of today's figure, whereas then our depositors numbered 1,555,359 as compared with 2,557,909 at the present time." The bank's liquid position, he noted, continued strong, total quick assets of \$1,918,749,579 representing 61.24% of the bank's liabilities to the public.

Mr. Sedgewick discussed the bank's extensive building and renovation programme, noting that a new Calgary office had been opened and another large new building in Hamilton will shortly be occupied. Well located property has been acquired in Toronto, where in the next decade the bank's Ontario administrative offices and Toronto Main Branch will be housed. In addition to alterations and improvements to existing premises, 39 new branches were opened in Canada in 1955 and 23 new buildings, for opening this year or later, are under construction. Branches of the bank now total 851, of which 74 are located abroad.

NEWS OF AGRICULTURE

Get It At a Glance

World round-up of farm activities presented in brief

The forage crop program, organized by the Saskatchewan Department of Agriculture, had a record year in 1955, when 5,400 orders for 800,000 pounds of seed were received. In spite of this, there is a shortage of fodder in many parts of the province, and farmers have been urged to feed grain with hay. ✓

Butter stocks in Canada at the beginning of the year were 78,056,000 pounds in cold storage warehouses, and 20,152,000 pounds in dairy factories. ✓

Warwick hybrid seed corn from Ontario will probably be imported by Russia for testing on large acreages in the Ukraine and central Russia this summer. Several thousand bushels of seed are said to be under consideration. ✓

New Zealand Dairy Products Marketing Commission estimates a loss of almost \$3,600,000 on sales of butter and cheese during 1954-55, which was the first year of trading under a free market in New Zealand. Cheese was mainly responsible for the loss. ✓

Agricultural production in Britain is estimated to have saved up to £200 million net in the balance of payments, after taking imports of raw materials, such as feed, into account, according to R. A. Butler, former Chancellor of the Exchequer. Output is now 150 per cent above the pre-war figure. ✓

A few farms in the Fraser Valley were barred from shipping milk recently, following publication of the report by Mr. Justice J. V. Clyne on the British Columbia dairy industry. The farms were placed under the ban by provincial government inspectors because their milk was unfit for human consumption or because it was produced under filthy conditions. ✓

Lord Nuffield scholarships of six months to study farming in the United Kingdom, sponsored by the Canadian Federation of Agriculture, have been awarded to Kenneth M. Ferguson of Alvinston, Ont., and Harold Webber of Manitou, Man. Both are aged 31. ✓

The United States International Co-operation Administration has announced a gift of 2,240,000 bushels of surplus wheat for relief of flood victims in Pakistan. ✓

The Australian Wheat Board, in an effort to improve the quality of wheat marketed throughout Australia, has directed agents handling wheat to reject consignments containing four per cent or more foreign elements, including foreign grain, and cracked, broken and shrivelled grain. It is to be sent back to the producer for recleaning. ✓

Food production in North America has increased over 25 per cent in little more than ten years, and this is the equivalent of well over 100 million acres of cropland. The job has been done with fewer people as a result of improved methods. ✓



[Robert's photo]

Prof. W. L. Hutcheon, the new head of the Department of Soil Science, University of Saskatchewan, is successor to the late Professor John Mitchell.

The parity ratio of prices received by Canadian farmers to prices paid by them reached 110 in 1951. It fell steadily until it was 81 toward the end of last year, according to H. H. Hannam, president of the Canadian Federation of Agriculture. ✓

The American Meat Institute has set up a million-dollar budget to push pork sales in a campaign on TV and radio, and in the press. The publicity emphasizes that pork is plentiful, highly digestible, rich in protein and vitamins, and low in price. ✓

Official Canadian registration of the Landrace breed of swine began in January. The Canadian Livestock Records Board has accepted American and British certificates to open the new herd book. ✓

Mexico plans a program for importing cattle, sheep and goats from the United States and Canada, to the value of about three and a quarter million dollars. Canada's contribution is expected to be 4,000 registered Holstein cows. ✓

Dr. H. A. Derby was recently appointed chief of the Dairy Division, Marketing Service, Canada Department of Agriculture. A native of Ontario, he joined the Department in 1932 as chief of markets and cold storage, and more recently as chief of the marketing and merchandising unit. ✓

Alfalfa seed yields were disappointing in Alberta last year because heavy rains in June and July covered the prairie with flowers. Cutter bees and bumblebees found abundant food in the flowers, and neglected to pollinate the alfalfa, according to Dr. G. A. Hobbs, forage crop insect specialist. ✓

The first Ukrainian settler in Canada, Wasyl Eleniak, died recently at the age of 97 in Mundare, Alberta. He set sail for Canada in 1891. Surviving him are seven daughters, three sons, 46 grandchildren, 56 great-grandchildren and one great-great-grandchild. ✓



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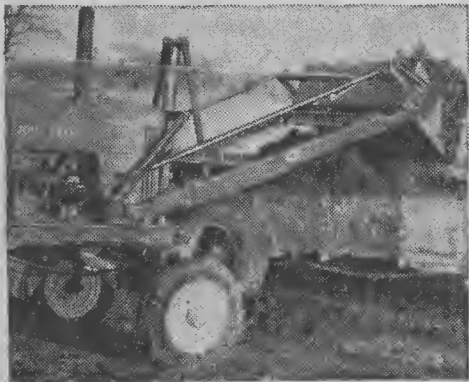
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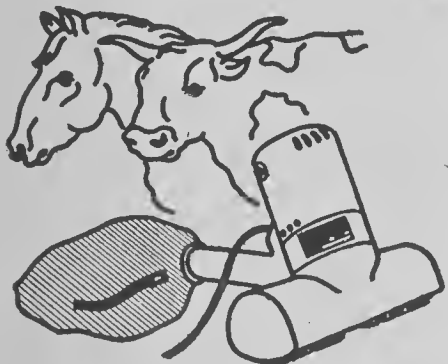
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Part of the new feed barn opened in the fall at the Experimental Farm at Indian Head. It is used for progeny performance tests of beef Shorthorns.

Shorthorn Performance Tests

BEEF Shorthorns are being used at the Experimental Farm, Indian Head, Sask., for performance tests. Each calf is weighed every week, starting soon after birth. Weaning is up to 4½ months, and then calves are introduced to the test feed for two weeks before testing begins. The feed is a mixture of roughage, grain and minerals in pelleted form according to the farm's own formula.

William Cram, animal husbandry specialist at Indian Head, reports that they are now able to use performance-tested sires, and can relate their rate of gain to their progeny. Gains have averaged as high as 2.92 pounds a day on test feed. ✓

Feed Barley In Mixtures

BECAUSE barley can be grown in most parts of Ontario, it is a popular finishing feed for steers. But compared with other concentrated feeds, barley is low in protein and high in total digestible nutrients. If it is fed heavily for a long period, cattle may lose their appetite for it.

The Ontario Department of Agriculture says that this drawback can be overcome by using it in mixtures. It tends to give a hard finish, and for that reason, and because it is not very palatable, it is not quite as satisfactory as corn for heavily grain-fed steers. With proper care, however, barley is still an important fattening and energizing feed, and has the advantage of being readily available in the province. ✓

Animal Diseases Are Costly

A FARMER had about 60 market-weight hogs die of erysipelas before he started to find out the cause of the disease. With early diagnosis and prompt treatment, the loss would not have been more than two or three hogs. The Veterinary Services Branch, Alberta Department of Agriculture, quotes this case to show how costly diseases can be.

Through their field investigations and the case histories of specimens

submitted to the provincial veterinary laboratory, Edmonton, they have found that losses are often unnecessarily high. There was another case where a feedlot operator lost 15 head before calling in the veterinarian. The cause was blackleg, and early vaccination could have prevented most of the loss. Blackleg can even be treated when the disease is detected early.

The moral of this is that the veterinarian, with co-operation from the livestock man, poultryman, nutritionist, district agriculturist and others, can help to reduce disease losses and provide greater production. ✓

Artificial Breeding Pays Dividends

EXPERIENCE in North Dakota has shown that artificial dairy breeding builds up better dairy herds and larger incomes from milk production. Artificial breeding also eliminates the dangerous dairy bull, aids control of diseases, raises the value of calves and, in short, makes superior sires available to farm herds.

Clarence C. Olson, dairyman, North Dakota Agricultural College, claims that artificially sired cows now in production turn out 215 pounds more butterfat per year than the average North Dakota farm cow. Detailed records kept by dairy herd improvement associations show that 25 of 28 cows sired artificially are better producers than their mothers, when the mothers have butterfat records under 300 pounds per year.

Profitable improvements in butterfat production can also be made by offspring from 300 to 350-pound record cows. In this group, 21 of 25 artificially sired cows exceeded the production averages of the mothers. Even if the mothers are in the 350 to 400-pound, 400 to 450-pound, or 450-500-pound classes, the progeny can show significant improvement. In the top class, half of the daughters have improved on their mothers. ✓

Winter War On Cattle Lice

SLOW growth in calves and loss of weight in older livestock are caused frequently by cattle lice. If this is a long winter and cattle are confined for

an extended period, the threat from lice will increase.

E. E. Brockelbank, director of the Animal Industry Branch, Saskatchewan Department of Agriculture, advises stockmen to check their herds for lice now, and to apply rotenone or derris root powder if necessary. The powder should be worked into the hair on affected parts with a brush, and more than one application is needed during the winter.

For larger herds or range cattle, an applicator saturated with lice repellent, which animals can rub on themselves, is more practical. The applicator can be a chain or cable wrapped in burlap and stretched from a post, about five feet high, to the ground at an angle of 45 degrees.

Lice tend to collect on the folds of the neck and brisket, at the base of horns, in ears and in the croup area. ✓

More Butterfat Through Heredity

THE importance of the family in higher butterfat tests is stressed by J. E. Stallard, dairyman, University of Wisconsin, who says that any long-range change in butterfat test is a matter of heredity.

The principal reasons for lower or higher butterfat percentage, says Stallard, are inherited tendencies and breed, time since calving, the amount and quality of feed, the physical condition of the cow, the interval between milkings, weather changes, and certain hormones and drugs. A temporary high butterfat test can be achieved by feeding and management, but it may lower the dollar value of milk production. High-test cows are likely to have high-test calves, and the herd sire also helps to guide the butterfat test in a herd. ✓

Frosted Flax Produces Poison

FROST-DAMAGED flax has been tested at the Experimental Station, Swift Current, and found to be extremely dangerous as feed for livestock. In most cases, death would have resulted from consumption of fairly small quantities of the material.

The poison in frosted flax is similar to that sometimes found in drought-stricken sorghum, and will produce hydrocyanic acid poisoning. Swift Current officials say that probably the best precaution is to destroy unharvested flax before turning livestock into the fields. ✓

Hybrid Lambs Increase Efficiency

HYBRID lambs can be produced on a commercial scale, and will give increased efficiency in meat and wool production, according to research at the U.S. Department of Agriculture center at Beltsville, Maryland.

The results are based on the use of purebred flocks in which, through years of improvement, the capacity to increase production of meat and wool has become fixed. This emphasizes the need to maintain high quality purebred flocks, whether they are to be used for successful purebreeding or commercial crossbreeding.

Commercial growers can produce vigorous hybrid lambs by crossing their own grade flocks with high quality purebreds of another breed. ✓

LIVESTOCK

Spring Pigs In the Pasture

A GOOD bróme and alfalfa stand was used in 1955 as pasture for spring-farrowed pigs at the Experimental Farm, Brandon, Man. All litters were assigned to individual, eight-acre pasture lots early in the nursing period. After weaning, 128 pigs, including some from each litter, were moved to the piggery, where they were pen fed throughout the growing and fattening period. The remaining 243 were kept on pasture during the summer. Both groups were self-fed standard rations used by Advanced Registry feeding stations.

The pigs in each group averaged 39.4 pounds when weaned at eight weeks. In the 84-day period, the pen-fed group gained 122 pounds on average, requiring 356 pounds of feed per 100 pounds of gain. The pasture group gained 112 pounds, requiring 352 pounds of feed per 100 pounds of gain. The pigs in the piggery continued their rapid rate of gain and reached market weight when 162 days of age, compared with 172 days for the pasture pigs. But pasture lots eliminated the need to clean pens, simplified distribution of feed, and will provide clean ground for pigs each year. V

Loose Housing Vs. Stanchion Barns

COMPARISONS between loose housing and standard stanchion barns have been carried through four winters at the Experimental Farm, Agassiz, B.C. The loose housing was a modified stanchion barn, with a full loft for storing hay. Instead of having one side completely open, the feed racks for hay and silage served as a partial wall on the open side, with the remainder as a large doorway, which could be closed when snow threatened to drift in heavily. It was found that the door had to be closed for two or three days in each winter. About two-thirds of the barn was devoted to the bedding area, allowing 70 square feet per cow. The rest of the space, along the feed rack, was a clear concrete area. The bedding area was allowed to build up during the winter, with shavings or sawdust added as needed.

The inside temperature was found to be 8 to 16 degrees higher than the outside, the lowest inside temperature being 24 degrees above zero.

The stanchion barn group was allowed limited exercise in the yard for about an hour a day while the stalls were cleaned and bedded. The loose housing cattle were only restrained from moving in and out of the barn during the two or three days when snow was being blown directly into the barn.

Cows in the loose barn ate an average of 4.5 pounds of hay per cow more than those in the stanchion barn. Bedding cost less in the loose barn, and less labor was needed. There was no difference observed in milk production or quality, or in injury to udders or the body. Cows in the loose barn did not become as dirty as those in the stanchion barn. V



WHAT TO DO **before** YOU RUN OUT OF TIME THIS SPRING

When time is running out this spring—when you're sweating out bad weather, do what Calvin Fisher, Komoka, Ontario did: go to your Caterpillar Dealer and tell him you want to try out a CAT* D2 Tractor!

Then you, like Mr. Fisher—whose D2 is shown above—can pull 4 to 5 bottoms in clay loam, turning up to 20 acres per 10-hour day. Handle several pieces of equipment at once to prepare your seedbed in one pass. Work without fuel-squandering slippage through soft seedbeds, with never a delay or a detour for those occasional wet, slick spots. Accomplish much more than you could with ordinary wheel-type farm tractors of similar horsepower. Work deeper to break your plow pan and increase your yields. Prepare seedbeds without harmful soil packing—so commonly done by wheeled vehicles—because Cat

track-type Tractors exert less weight per square foot than *you* do as you walk across the field!

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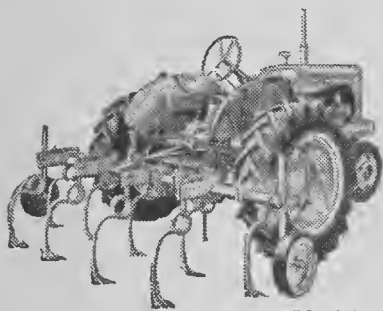
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FIELD



[Paul Hadley photo.]

Planning for the spring thaw, many farmers will be taking another look at crops and livestock, wondering what will be best for the markets of 1956.

Have Seed Cleaned Now

DON'T wait for good seeding weather before you think about having your seed cleaned, advises Robert L. Pharis, Supervisor of Crop Improvement, Alberta Department of Agriculture. Seed cleaned now will avoid the rush in March and April.

If you doubt the need for seed cleaning, Mr. Pharis suggests that you spread out a pound of the seed that you intend to plant, count the weed seeds in it, and multiply by the seeding rate per acre. The result may surprise you. Last year, one out of three seed drills sampled in Alberta contained grain that was rejected for seed. A good seed cleaning plant will ensure a satisfactory minimum of weed seeds, but if you have your own equipment, be sure that you make a thorough job of cleaning.

The suggestion comes from the Ontario Department of Agriculture that you pay attention not only to weeds, but also to losses from smut and other seed-borne diseases. Most seed plants in the province are equipped for seed treatment, and seed can be bought from them fully cleaned, treated, bagged and clearly marked as to variety and grade. For best results, use the varieties recommended for your area.

What to Do With Field Sloughs

SLOUGHS occurring in fields because of spring flooding are an annual problem. They delay seeding, and are too often accepted as inevitable, but there is something that can be done about them. The Experimental Farm, Swift Current, recommends that the sloughs be seeded to Reed canary grass, if they are not too alkaline. This produces a high-yielding hay crop for many years with little trouble, and will stand flooding throughout the summer if the water is not deeper than two feet. A grass-alfalfa mixture can be used on the higher edges, where flooding will not occur.

Since sloughs cannot usually be seeded in spring, they must be sown to forage in the fall, when they are dry and a firm seedbed can be prepared. If the slough has been summer-fallowed, it can be sown after October

15, but even if it cannot be prepared for sowing next fall, it should be broken up, and then a green feed crop of oats or barley can be sown when it dries during the following summer. Reed canary grass can be sown the following fall directly into stubble, but avoid seeding between September 15 and October 15, because winter killing is likely if forage plants germinate during that period. Five pounds of seed per acre is sufficient, representing less than \$2 an acre for seed.

Alfalfa In the Maritimes

ALFAFA is a long-lived, deep-rooted perennial and needs fertile, only slightly acid, and well-drained soil. Most soils in the Maritimes must be heavily limed for alfalfa, which will grow well on well-drained soil throughout Nova Scotia, Prince Edward Island, Newfoundland and New Brunswick, if four to six pounds of lime per acre are used.

Experimental farms in the four provinces have been testing alfalfa, and have concluded that it is an outstanding legume crop for hay and silage if it is adapted, but it will not stand close grazing.

They advise buyers to see that the seed is adapted, unstained and of Canadian origin. Seed from the United States is stained one per cent black, and is preferable to that of other countries, whose seed is stained ten per cent red. If alfalfa is being grown for the first time, it should be treated with a bacterial inoculant.

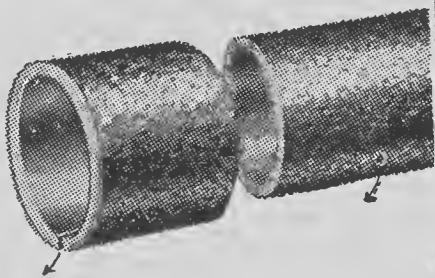
High Quality Feed from Hay

SOIL of high fertility is the first essential in producing hay of high feeding quality. The Ontario Department of Agriculture recommends an application of phosphorus at the time of seeding, or better still, have the soil tested before seeding and apply a balanced fertilizer.

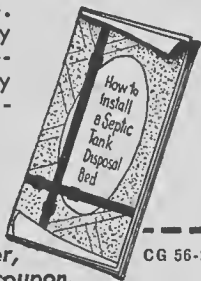
The most favorable conditions for establishing young seedlings are fertile soil, adequate moisture, fairly cool temperature (in early spring or fall), and minimum competition and shading from the nurse crop.

The soil should be worked into a fine condition because the seeds are

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are you sowing weeds?

Thirty per cent of all farmers in Canada use rejected seed, according to 1954 seed drill surveys. Uncleaned and low grade seed results in extra work, lower yields, lower quality and lower profits.



RECOMMENDATIONS:

1. Use registered seed when possible.
2. Have seed properly cleaned.
3. Treat for seed-borne diseases.
4. If you use home grown seed, have it cleaned and graded at a qualified seed cleaning plant. Have the cleaned sample tested at a government seed laboratory.
5. Check with your Agricultural Representative for seed supplies and cleaning plants.

It's a good farm practice to sow clean seed. Another good practice is to start a savings account at The Canadian Bank of Commerce. Add to it regularly; watch it grow. To keep records of your expenses, use a current account; pay all bills by cheques; your cancelled cheques act as receipts. Call soon at our nearest branch. You'll get a friendly welcome.

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FIELD

small, and the seedbed should be firm to bring up an even supply of moisture from the subsoil. Broadcast seeding, either with a grass seed attachment on a grain drill, or a special seeder, gives good results in Ontario. On dry soils and in dry seasons, it has sometimes been more successful to mix the small seeds with the grain, and seed through the grain spouts, especially with orchard grass, brome and alfalfa. Don't seed timothy, red clover or alsike, or any small grass seed, too deep. V

New Forage Crop Varieties

PROPOSALS for increasing forage crops in Manitoba are encouraged by the news that four new varieties are being distributed by the Soils and Crops Branch of the provincial Department of Agriculture. The new varieties are Vernal alfalfa, Climax timothy, La Salle red clover and Erector yellow sweet clover, and the seed has been produced under the Canadian Forage Seed Project.

Only a small quantity of Vernal alfalfa is available. It is a new variety from the United States, and is expected to replace Ladak and Grimm in Manitoba. Vernal is more resistant to disease than any other variety, and its yields are as high as Ladak.

Climax timothy is popular in eastern Canada and eastern U.S. because of its high yield and better feed qualities. Good seed yields can be obtained in Manitoba under good moisture conditions.

La Salle red clover, a double-cut variety in eastern Canada and the United States, is popular there because of its yield and disease resistance. It is not entirely winter hardy, but seed can be produced in northern and eastern Manitoba. Erector yellow sweet clover was selected because of its upright growth and earliness. It is not as coarse as white sweet clover varieties.

Seed for these four varieties is also available to Saskatchewan farmers through the provincial Department of Agriculture. V

Cereal Variety Tests

TESTS over the past 13 years have shown that Olli is the best barley variety for the central interior of British Columbia, according to S. G. Bonin of Prince George Experimental Farm. It is early enough in maturity for harvesting to be completed before the fall rains, and the yields from Olli are satisfactory.

Barley is one of the principal grain crops in this region, and is often used as a companion crop when seeding down forages. Olli produces good quality grain and has straw of medium height. It is less susceptible to lodging than other varieties that were tested. The rough awns make it irritating to handle in harvesting, but it more than makes up for this by fine field performance.

Results of three years' testing of Selkirk wheat at Lacombe Experimental Farm, Alberta, have been in-

conclusive, and farmers in Central Alberta should hesitate before changing from Thatcher to Selkirk, says Don McFadden of Lacombe.

The Alberta trials have shown that in the three years Thatcher had an average yield of 39.4 bushels per acre, and Selkirk averaged 38.6 bushels. Thatcher outyielded Selkirk considerably in two of the years, but further testing is needed before any definite conclusions can be drawn.

Another variety, Lake wheat, has been tested on farms in western Saskatchewan and eastern Alberta. Yield results from 110 tests have shown that Lake averaged 30.7 bushels per acre, compared with 28.7 bushels for Thatcher, according to the Experimental Farm at Scott, Saskatchewan. V

Draining Irrigated Land

TOO much water can be as bad as too little, and makes drainage as important as water application on irrigated farms, according to P. H. Walker, of the Lethbridge Experimental Farm.

Excess water forms sloughs, increases soil alkalinity by concentrating alkali salts at the surface. It also causes erosion and reduces acreage. One of the dangers of irrigation is that it may be followed by heavy rain, and Mr. Walker recommends that the surplus water should be led away as quickly as possible.

Sub-surface drainage is often costly, but surface drainage can also get rid of surplus water before it does any damage. Border irrigation ditches will serve the dual purpose of taking water to a field and removing the surplus, if the land is fairly level; and contour ditches can do the same on sloping land. Grassed drainage ways, mown or grazed, serve the purpose well on hay or pasture land.

It is important to see that there are channels to carry the water away, after it has drained from the fields. V

More Corn To the Acre

THE use of corn as a summerfallow substitute after several cereal crops means that the land is generally low in nitrogen, and points to the need for fertilizer. Corn trials in Manitoba during 1955 showed 80 to 100 pounds of 16-20-0 fertilizer per acre will give a better yield and lower ear moisture than any lower rate, and is superior to 11-48-0 for corn grain production. This is on account of the extra nitrogen in 16-20-0.

Applying part of the fertilizer as a side dressing in early July showed no advantage over the standard method of making the entire application at time of planting.

The trials also showed that the plant population per acre has been below the optimum for highest yield in the past. Four plants per hill, checked at 42 inches, yield significantly more than the common practice of seeding three plants to the hill. For the drilled row, spaced at 42 inches, plants within the row spaced at 10 to 12 inches yield more grain per acre than any lighter seeding. V

WORKSHOP

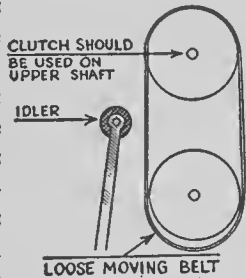
Winter Chores For Practical Men

Panel Feeder. To make a panel feeder for sheep, I took an old elevator cup and welded two pieces of flat strap iron to it. The pieces of strap iron were hung on the sheep panel, and the cup was then ready for the feed.—

J.W., Alta. ✓

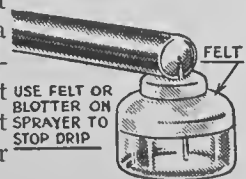
Tail Stopper. If you have trouble keeping cows' tails out of your face while milking, all you need to do is to tie some twine to the ceiling of the barn, secure a battery clamp on the other end of the twine, and slip the cow's tail into the clamp. It is important to suspend the clamp above the level of the cow's back, but not too high for the tail to reach up to it.—E.J., Man. ✓

Vertical Belts. The vertical drive shown in the sketch is too long, and the belt hangs down below the lower pulley, when the idler is released. But the upper pulley runs continually, whether the idler is in use or not. A far better way to start and stop the machinery is by fitting an inexpensive friction clutch to connect the upper shaft with the upper pulley. This is safer, reduces belt and pulley wear, and wastes less power. Using the idler, the belt is always in motion, and whips around, wearing itself out, when the idler is not engaged.—W.F.S., N.J. ✓



Waterproof Tarpaulins. Tarpaulins are used a lot on farms for covering grain, machinery, etc., but most new tarpaulins are not waterproof. A good way to waterproof them is to take a pail of boiling water, two gallons of turpentine, and a packet of paraffin wax. Pare the wax into thin slices, put the slices into the turpentine, and then pour this into a pail. Put the first pail into a second pail of boiling water, which will heat the turpentine and melt the wax. Add warm water to the mixture, and stir well to keep it from sticking. Then put the canvas into the pail and cover it evenly with the mixture. Wring out the canvas, and allow it to dry by hanging it on a line. For larger jobs, tubs can be used instead of pails. It is important to keep the mixture away from any naked flame.—S.S.B., Sask. ✓

Stops Leakage. To absorb the leakage and prevent dripping from a household insecticide sprayer, cut out a piece of felt or blotting paper and fit it snugly around the neck of the sprayer and over the top of the container. This can be very effective.—D.M.E., Alta. ✓



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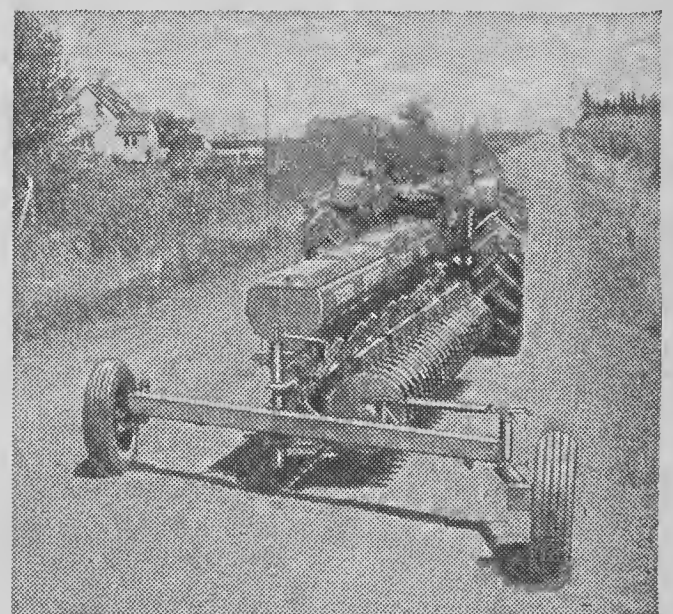
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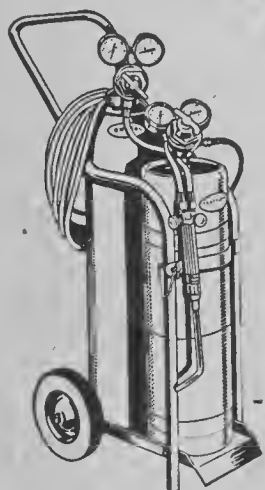
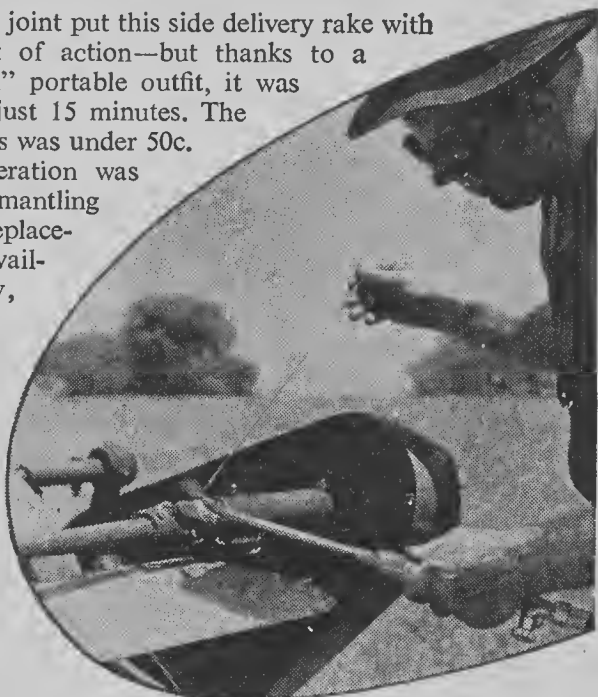
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HORTICULTURE



This mechanical tree tiller developed in the Okanagan Valley, B.C., is under test at the Summerland Experimental Farm to check its efficiency and cost.

Mechanical Tree Tiller

A TREE tiller for use in fruit orchards has been developed by a mechanical engineer living in the Okanagan Valley. It can be adjusted to fit any tractor. The device consists of a thick, conical shaft studded with tiller blades, which is attached to a long driveshaft that operates from a tractor's power take-off. By driving in a circle around each tree, the operator can cultivate a whole orchard with little effort, and in only a fraction of the time taken by the old hand tool methods. This is a boon to Okanagan farmers who operate a multi-million-dollar tree fruit industry. V

Science and Horticulture

Thinning fruit in commercial orchards by spraying with selective chemicals, as for weed control, is now practical. As with so many new developments, a great many details are still unknown. At the Summerland Experimental Station, peaches and pears were sprayed with a concentrate of spray, using 1.2 gallons per tree of three different strengths of a commercial chemical, containing 90 per cent, by weight, of N-L-Naphthylphthalamic acid.

Forty-two days after full-bloom, there were no symptoms of leaf injury from any of the strengths, all of which caused a slight, to moderate, over-thinning. This spray not only thins peaches without leaf damage, but does a good enough job that only ten minutes per tree was required to complete thinning on sprayed trees, as compared with 1.5 hours per tree for similar trees not sprayed.

Applied to pear trees, however, fairly similar strengths of the same spray each removed almost all of the fruit and almost completely defoliated the trees. V

At the Lethbridge Experimental Station, many heat-loving, late-maturing vegetables are frequently prevented from maturing, by killing September frosts. Tomatoes, in particular, would be profitable if the crop could be protected from such frosts, and Lethbridge horticulturists have

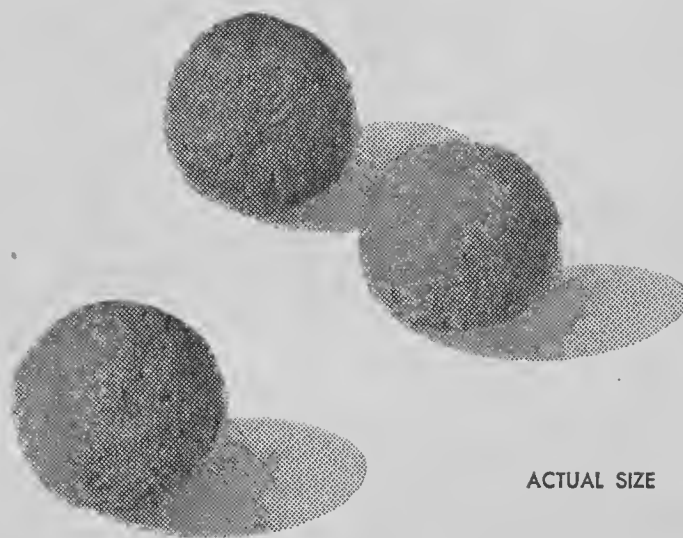
been trying various methods to promote earlier maturity and reduce the fall frost hazard. Earlier planting, combined with paper plant protectors, produced higher yields, but did not save the crop from frost damage. Earlier planting, combined with large fans to create air turbulence, showed no apparent benefit. Oil-burning orchard heaters, as used in southern citrus groves, were little, if any, better. Special infra-red propane burners provided some protection to the fruit, but damaged the foliage of the plants. Last year both the infra-red burners, and, on a separate plot, a sprinkler irrigation system, were tried. When the temperature fell to 33 degrees and went as low as 29 degrees, the burners gave limited protection for a radius of about 15 feet, but no frost injury occurred where the plants were sprinkled. The ice on the plants caused no apparent damage, but all the unsprinkled plants were completely destroyed. V

Time Soon For Pruning

IT will not be long until spring pruning time will be here. As soon as the back of the winter is broken and the danger of severe cold weather gone, it is a good time to begin. All of it should be completed before the buds first begin to swell.

Some ornamentals will have been pruned, no doubt, after they ceased blooming last summer. Other shrubs and trees may have been pruned in the fall. In any case, be sure to get rid of the remainder of the pruning that needs to be done, before the bustle of spring work on the farm begins. Prune too little rather than too much, especially if there is danger that the winter may have injured some branches, and the injury cannot be detected before they are leafed out. Don't leave ugly stubs anywhere. Make slanting cuts with a sharp saw, close up against the thickened growth of the base of the branch. Ask your agricultural representative or district agriculturist for a bulletin on pruning, or write to your nearest experimental station. Keep your pruning tools sharp, and never use them unless you can see a good reason for doing so. V

What's news at Inco?

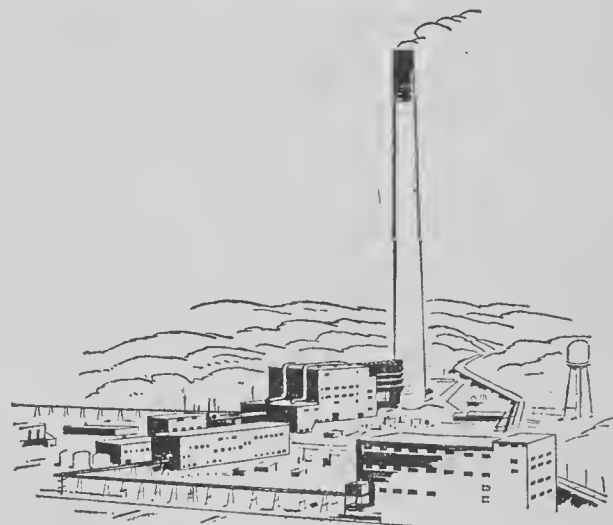


ACTUAL SIZE

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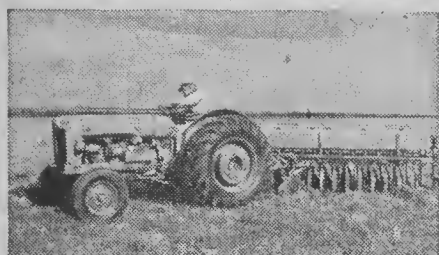
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[Guide photo]

Part of the laying flock of purebred New Hampshires on open range at the poultry farm operated by Rex Comb at Saanichton, Vancouver Island.

Pasture Cuts Poultry Costs

CHICKENS are capable of using a large amount of pasture grass, according to the poultry and forage crop divisions of the Experimental Farms Service, Canada Department of Agriculture. The two main reasons for providing pasture for poultry are to supply nutrients as a supplement to their ordinary ration, and to provide hygienic conditions which will help to control disease.

Pasture plants are primarily a source of vitamins for poultry, but they also supply protein in small amounts, which may permit some saving of the more expensive proteins of grains and mixed feeds. When the birds are out on good, green pasture in the sunshine, feed requirements are not so exacting, since pasture herbage is a good source of the most necessary vitamins, with the exception of vitamin D, which is supplied by sunlight.

Experiments suggest that poultry with access to good pasture can make satisfactory growth on rations with about three per cent less protein than where pasture is not available. In addition, pasture plants are a good source of calcium and phosphate, which are essential to bone growth, and are considered to be the most important minerals in poultry nutrition. Cereal grains are low in these minerals, and therefore pasture has a high supplementary value in this respect. The growth, rate of maturity and subsequent egg production of pullets is not sacrificed if feed is restricted by 10 to 15 per cent during the rearing period, when good pasture is available. An estimated saving of 15 to 20 per cent of the cost of rearing through the use of good pasture is probable.

Recommendations for grass and legume pastures in particular areas can be obtained from experimental farms. V

Three Factors In Broiler Rise

MODERN chickens grow faster and grade higher than chickens 20 years ago. The rise of today's broiler trade as a profitable farm enterprise has been the result of a three-way improvement program, involving a combination of better feed, better breeding, and better care.

To demonstrate this point, the University of Wisconsin has just concluded a series of tests. A group of present-day strains of broilers, capons, and caponettes was divided into two flocks, one being placed on a modern ration, and the others put on a ration used 20 years ago. The growth rates of these birds were then compared to similar rates collected in 1936 to give some idea of how much improvement was due to breeding and management, and how much to feeding.

Today's ration was found to have put on almost a pound more gain per bird at 16 weeks, and more of them graded in the two top grades. Modern strains of broilers did better too; when fed the same ration fed heavy breed broilers 20 years ago, they showed a 24 per cent better gain than those registered by the chickens tested in 1936. Birds in the 1936 tests averaged 3.68 pounds at 16 weeks, as compared to 4.56 pounds for modern broilers on the same type of feed — pretty good evidence that both breeding and feeding played a big part in the results. V

Egg Handling Time Can Be Less

TIME spent in gathering eggs is reduced when laying houses are closer to square, rather than long and narrow, when nests are concentrated in restricted areas of the house, such as egg parlors, and when grading and packing rooms are centrally located.

Such time-saving ideas may seem trivial, but a study made by the Institute of American Poultry Industries has shown that 58 per cent of the working time on commercial egg farms is spent in the care and handling of eggs, including gathering, cooling, grading, cleaning and packing.

Little time can be saved in grading and packing, apart from providing adequate grading equipment, says H. S. Gutteridge, chief of the Poultry Division, Central Experimental Farm, Ottawa. The most time-consuming work is cleaning soiled eggs, and the best way to avoid it is to keep the eggs clean in the laying house. Some soiling is unavoidable, but most is due to the wrong type of nest, not keeping nest litter clean, and gathering too infrequently. The "roll away" nest may go a long way toward solving this problem. V

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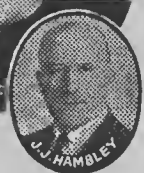
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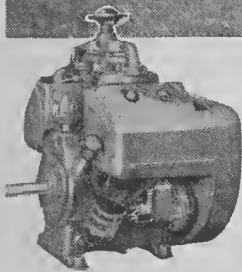
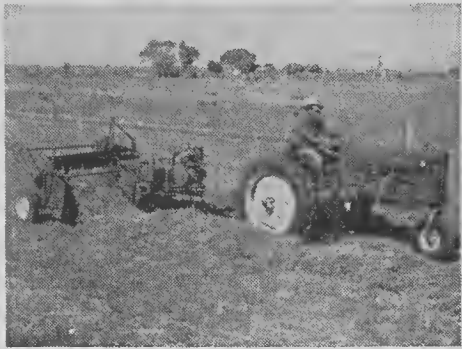


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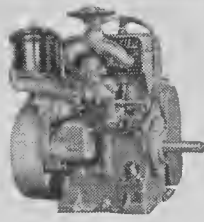
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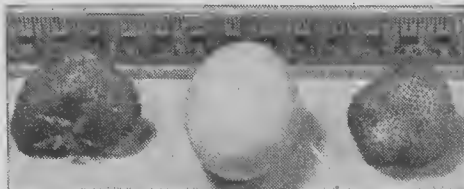
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Young People

On the farm and at home

Specs for You

Tips on how to choose glasses that flatter

IT can be quite a blow when you are first told that you have to wear glasses," said Irene Kereliuk during a demonstration at Manitoba's 4-H week.

"Take into consideration the shape of your face and hair style when choosing frames for your glasses," advised her partner, Vicki Stadnyk. Both girls, who come from Sundown Snappy Stitches club, wore becoming eye-glasses and attractive hair styles. They placed second in the provincial competition.

The topic of their demonstration "Specs For You" was new to leaders and club members so we thought our young readers, especially those who wear glasses, would be interested in finding out how to choose glasses that would add to their appearance. Here are the points Irene and Vicki discussed:

Consider the shape of your face. If your face is inclined to be round or squarish, frames with uptilted outer corners will probably do most for you. A thin narrow face such as a heart shape or oval face will look fuller if the frames of the glasses are more or less level with the line of the brows. A person with a round face should not wear round glasses; a long-faced person should not lengthen her face by wearing glasses that point down on her cheeks. Just now the type of frame with dark temples and upper rims are in vogue, but unless they suit you, do not take them. Pastel colored frames are more generally becoming—a soft color will go well with all your costumes too.

What about hair style? Hair which is combed straight back is apt to make you appear harsh and stern; bangs or any hair style that is low on the forehead should be avoided. Hair brushed away from the face giving some fullness on the sides for balance is a good style. Keep on your glasses when you are arranging your hair.

When shopping for a new hat, wear your glasses. No matter how pretty it is, pass up the too narrow one that makes you look "all glasses." A hat that is worn over the forehead has the same effect as a low hair style. Select



Smart see-manship.

a hat that has some width—try pill-boxes that are fairly wide in the crown or off-the-face bonnets that aren't too head hugging or cloches and wear them well back on the head. Hats with uneven or broken lines flowing away from the face and showing plenty of forehead are particularly good and becoming to most.

Accessories should be carefully chosen. Avoid too many glittery things. When choosing earrings wear your glasses and look at yourself from the sides and front to decide whether the button style or long earrings are most becoming.

Be clever with your makeup. Wear bright lipstick to relieve a too-serious look which glasses tend to give—but do avoid a painted look. If your brows and lashes are too light touch them slightly with a dark eyebrow pencil to give them some character.

"See better—learn better!" Wear your glasses as though you enjoyed them and were grateful for their assistance to better sight and attractive looks. ✓

That's Curling

Take a licking with a grin; accept a win modestly

AT the 1954 Dominion High School Bonspiel held in Hamilton, Ontario, two evenly matched teams, Manitoba and Saskatchewan, met in the final round. The outcome of the game was always in doubt—no more than two points separated the rinks at any time. Entering the final round, Manitoba was two points behind but had the advantage of last rock. When the Saskatchewan skip, Bayne Secord,

went to play his final shot, the Manitobans were lying three. Secord's rock, a trifle heavy, nudged the Manitoba rock back two feet but at a slight angle so although his stone remained shot, it could be removed cleanly by hitting it full or on the inside (see diagram).

Gene Walker, Manitoba's skip, had only to remove this one stone to win the game—one shot stood between his

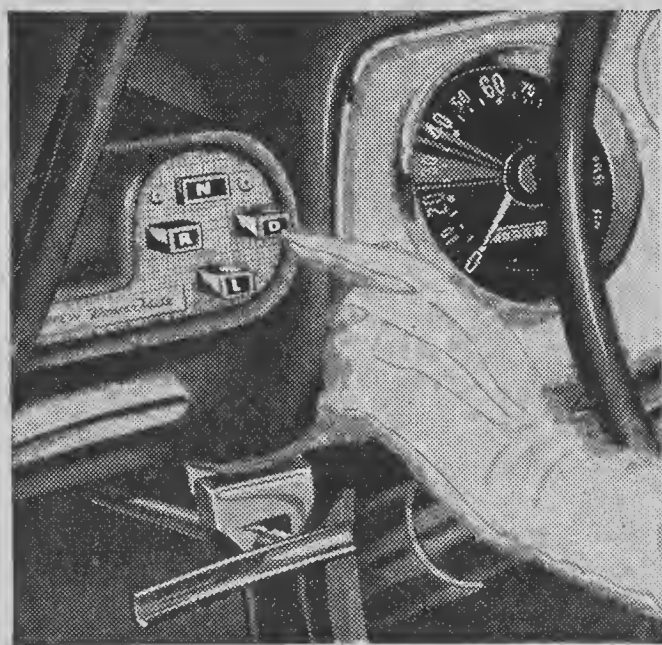
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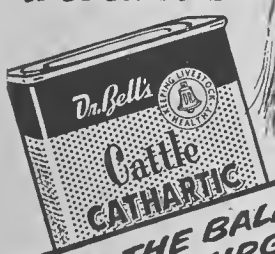
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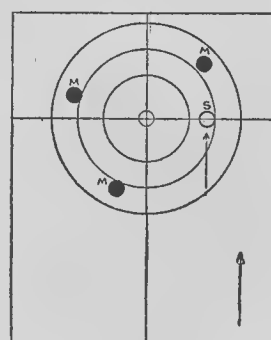
team and the coveted Canadian Championship! Gene signalled his third man for an "out-turn" with ice on the edge of the rock to be removed. As he started down the ice, his teammates called him back and suggested an "in-turn." There was some disagreement but finally while their skip's tension increased the "in-turn" was decided on. Walker's rock was "on the broom" but heavy, his stone whizzed by and the championship went to Saskatchewan!

The Manitobans have lived that shot over many times and they will be the first to admit that they were wrong in not allowing their skip to select the turn he wanted to play. But win or lose—that's curling! It teaches boys to take a licking with a grin or accept a win modestly.

Canada's Mr. Curler, Ken Watson of Manitoba, tells this incident in his book "Curling To Win." He also has a word for curlers who think they are copying the famous Watson brothers' "slide" but who are really riding the rock or broom. "The farther out you slide in delivering a rock, the greater risk you run of drifting off the line of delivery," says Mr. Watson—as three times winner of the Dominion Championship he should know!

Older curlers objected to the slide and said it was doing harm to the game. Finally the Dominion Curling Association suggested "that the rock must be released before the man reaches the hogline." No penalty was to be enforced, for the game of curling is built, not on rules but gentlemanly conduct. It teaches self-control and co-operation and how to play hard to win on the ice, and not by the rule book.

Curling claims more players than any other sport in Canada—more than 50,000 boys take part in various local high school curling leagues. To be eligible to play in the High School bonspiel a boy must be a regular stu-



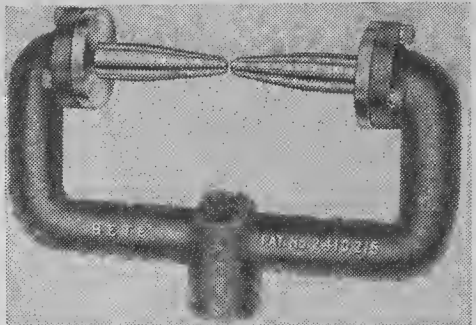
Before Manitoba's last rock.

dent at a public or private school. All four players must come from the same school and be certified by their principal as under 19 years of age prior to the year of entry.

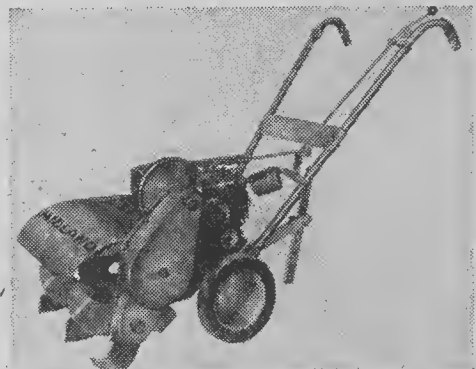
The first High School bonspiels were invitation matches but by 1950 the games became Canada-wide and all ten provinces sent teams to compete at Quebec City. In successive years bonspiels have been held at Nelson, B.C., Moncton, N.B., Saskatoon, Sask., and Hamilton, Ont. The 1956 games will take place in Fort William this month. Though Manitoba claims to be the curling center of the world, its representatives at the Dominion High School bonspiel will be Jack Robson's rink from Kenora, Ontario. But that's curling!



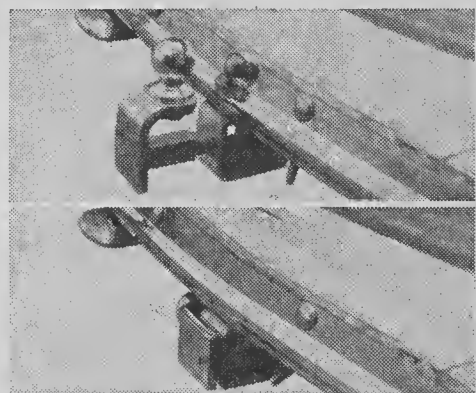
WHAT'S NEW



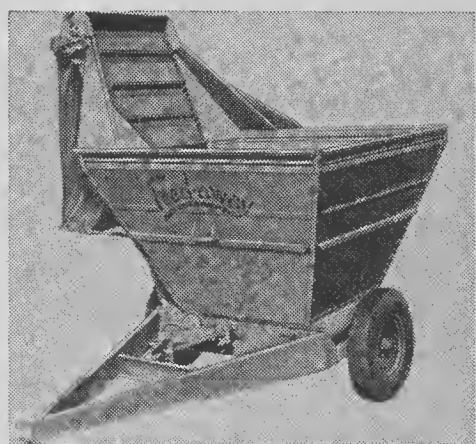
The highest possible efficiency of atomization at any operating pressure is claimed by the manufacturers of these new opposed jet, impingement-type nozzles, which are designed for fire-fighting and agricultural fogging. (Bete Fog Nozzle Inc.) (110) V



A new rotary tiller measures only 18 inches from the ground to the top of the hood, say the manufacturers, and can till underneath low hanging plants, shrubs and trees. (The Midland Co.) (111) V



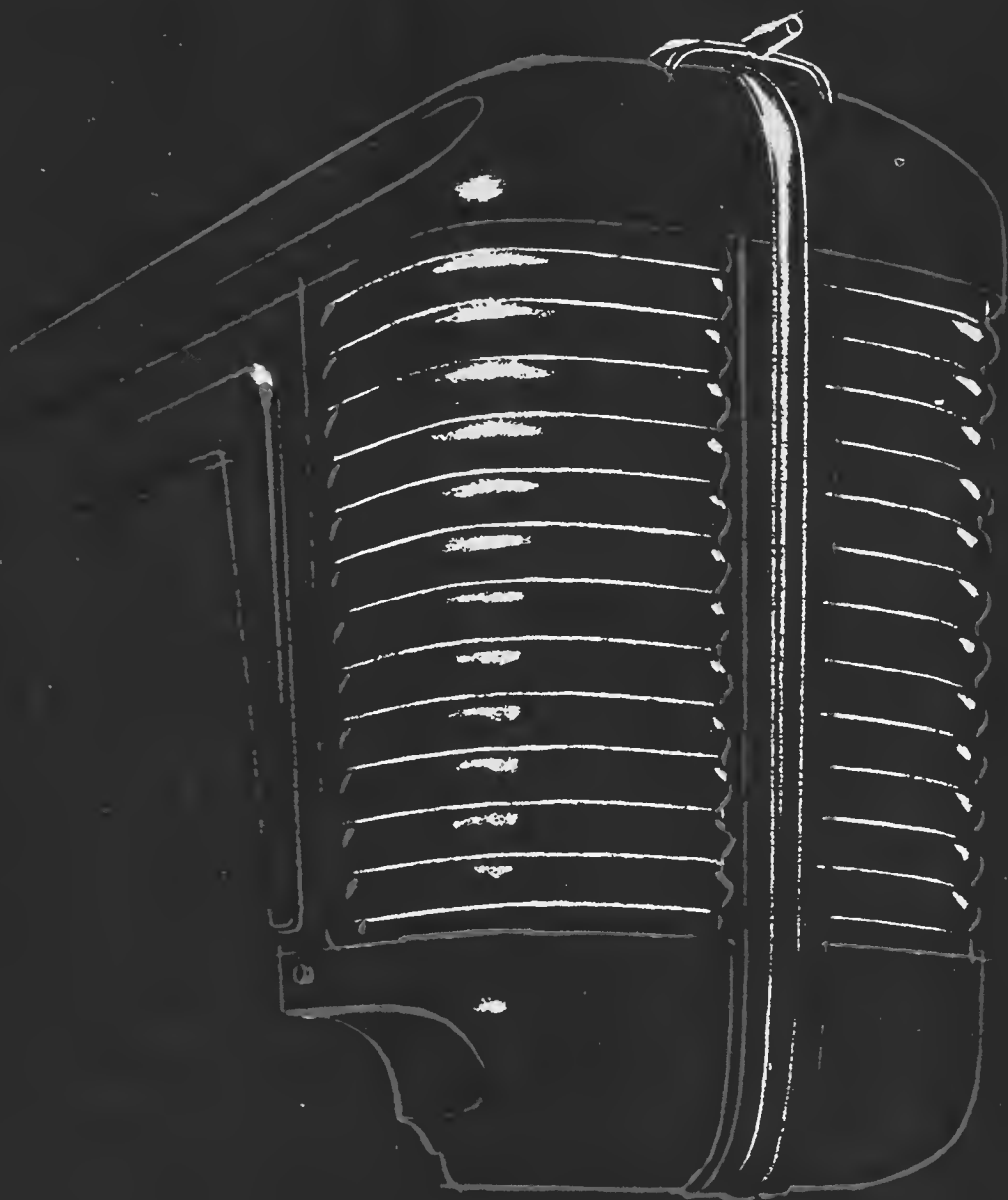
A new trailer hitch for passenger cars retracts and locks out of the way under the bumper when not in use. According to the manufacturers it is connected to the car at three points. (Specialty Engineering Inc.) (112) V



An automatic feeder unit, designed for the average feeder, has a capacity of 80 bushels, which can be expanded to 120 bushels, say the manufacturers. It is for green or dry feeds, mixing as it unloads. (Kelly Ryan Equipment Co.) (113) V

For further information about any item mentioned in this column, write to What's New Department, The Country Guide, 290 Vaughan St., Winnipeg 2, giving the key number shown at the end of each item, as—(17).

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find in any other tractor of comparable size.

This *different* kind of 2-3 plow tractor is powered for split-second timing, razor-sharp implement control. And here's a big 'plus'—it will take both front and rear-mounted equipment! Choose from one of four great front ends—designed to suit your *particular* type of farming.

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MH-50

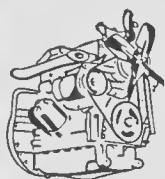
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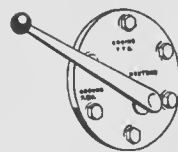
Ready to Go!



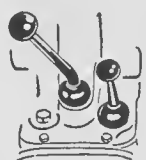
Torquemaster 4 Engine has new pulling power in the low rpm's, faster response to throttle changes. Marvellously easy on fuel!



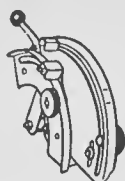
Duo-Range Clutch. Push down half way: the tractor stops but the PTO keeps turning. Push down all the way and you stop both tractor and PTO.



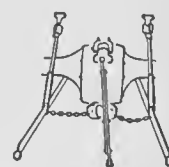
Double-Duty PTO has one setting geared to the engine, the other to ground speed. Clutch-operated live PTO speeds up heavy jobs.



Hi-Lo Transmission, with 6 forward speeds and 2 reverse, gives you matched speed for all jobs. Low range provides greater pull for heavy work.



Hydramic Control selects draft, response, depth—holds implements in *fixed settings*—all from a single, two-lever control quadrant.



Draft Monitor 3-Point Hitch automatically controls transfer of weight to give the right traction for light or heavy jobs.

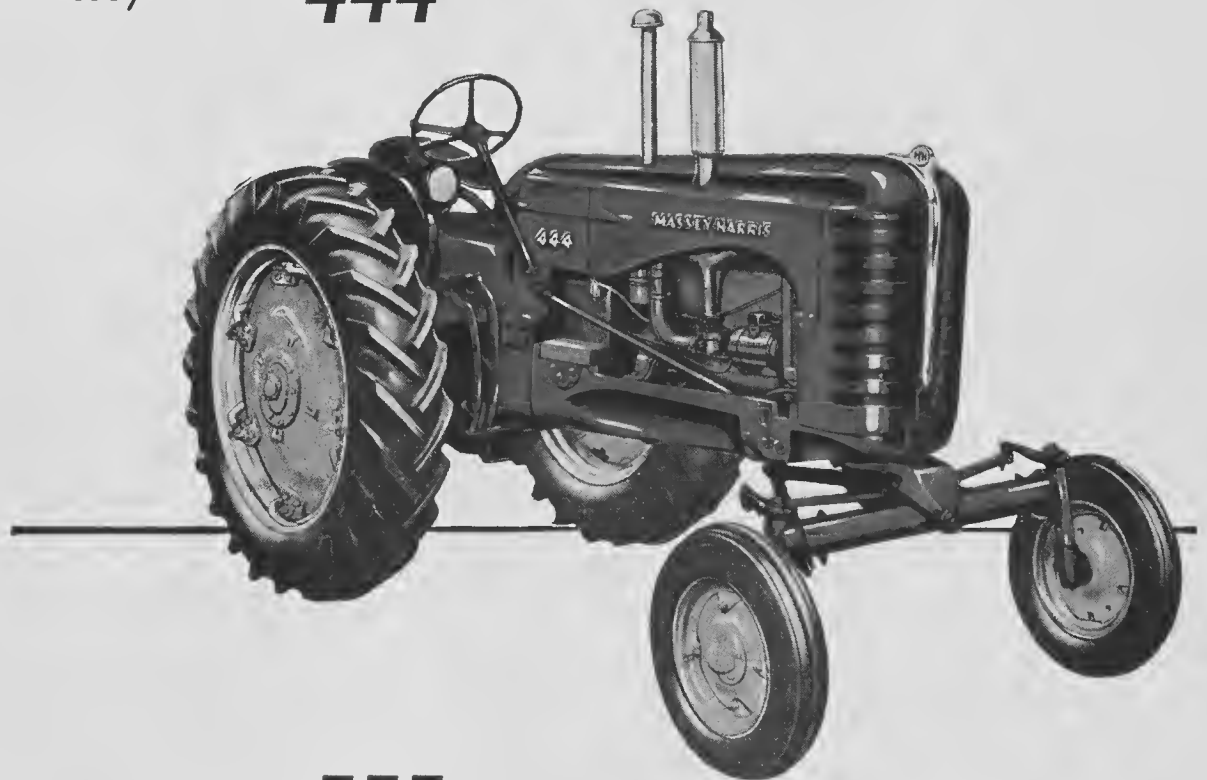
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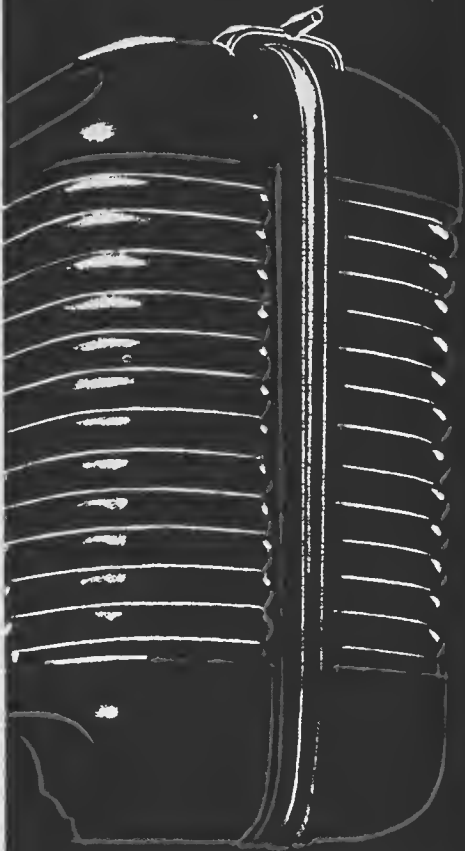
The NEW Massey-Harris **333**



The NEW Massey-Harris **444**



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BIGGER, THRIFTIER ENGINES!

First time you see the 1956 Massey-Harris 333, you'll notice its sparkling bronze-colored engine. First time you drive it, you'll marvel at its sparkling new performance. It's quick on the drawbar, loaded with power. It leans into jobs with an eager, get-ahead attitude that's going to win it a lot of friends. The new 333 is thrifty, too—behaves like a tractor worried about a gasoline shortage. Drive it and get the feel of tomorrow's farming *today*!

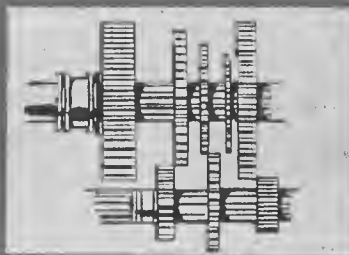
SURE-FIRE STARTING!

The Massey-Harris 444 for '56 has all the remarkable performance features of the 333 *plus* greater weight and 3-4 plow power. There are few jobs the new 444 can't handle with faultless ease. This year, like the 333, it has 10 forward speeds and 2 reverse, and a 12-volt electrical system for sure-fire starting. Hydraulic power and power linkage are now *completely enclosed*! Order it with power steering—the crowning touch in automotive-styled farming.

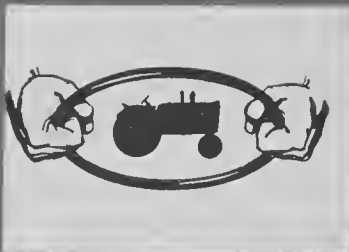
JOB-MATCHED PERFORMANCE!

Here's the new Massey-Harris 555—more powerful, more responsive than ever for '56. This great tractor gets more work out of every gallon of fuel because it uses fuel according to the load. You have to look into the engine to see why. There's a longer piston stroke, a more intense type of combustion, better vaporization, and really *precise* carburetion.

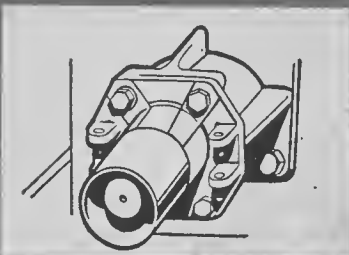
Hi-Lo Transmission provides 10 forward speeds, 2 reverse. Lets you match the power to the job more exactly than ever before.



Power Steering takes the fight out of the steering wheel, makes '56 models as easy to handle as a car. Optional on all models.

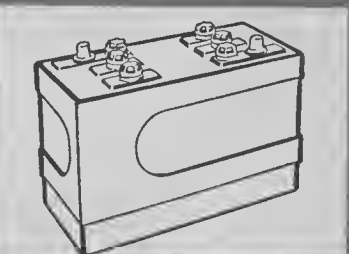


Direct-Line PTO gives straight through power flow. Independent PTO available as optional equipment.

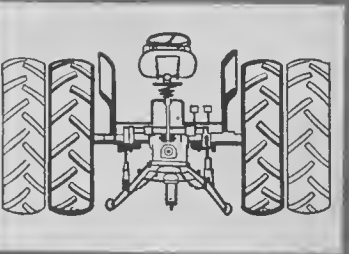


LOOK FOR THESE GREAT CHANGES IN '56

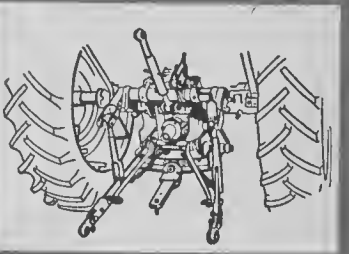
12-Volt Electrical System will turn over the coldest engine. Makes starting more sure-fire than ever.



Power-Adjusted Wheels can be spaced from 56 to 80 inches in 2-inch steps. Reversing wheels give 88-inch width. Optional equipment.



Wrist-Action 3-Point Hitch eliminates time-consuming jockeying of the tractor in hitching. Link-ends can be moved up or down to meet the implement.

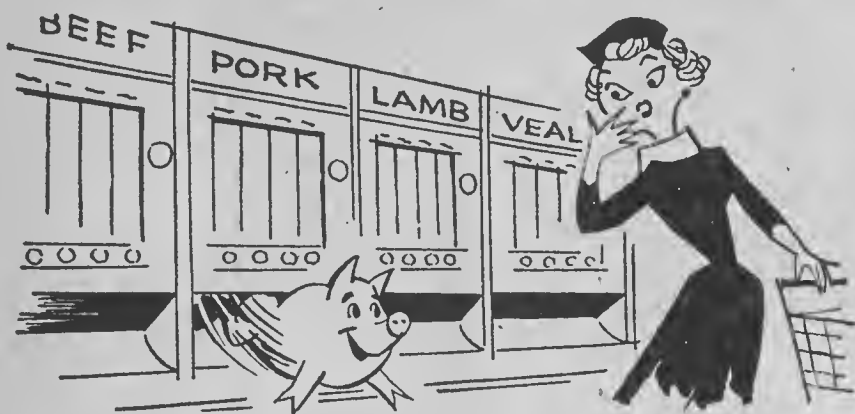


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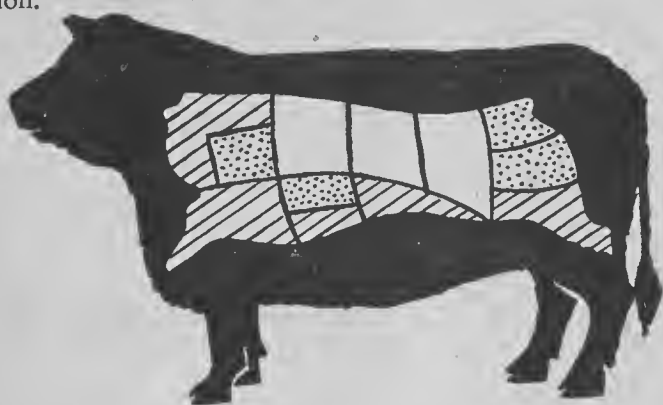
Few consumers, even in this day of home freezers, find it convenient to buy a whole carcass of pork or a quarter of beef. Smaller roasts, steaks or chops—trimmed, and wrapped—and a wide selection of all kinds of meat products are desired by the modern housewife in planning and preparing her family's favourite meal.

The key to selling meat successfully, or for that matter any product, lies in catering to the customer. This simply means supplying the kind and quality of meats wanted, *when* they are wanted. It's a job requiring teamwork by producer and packer.

Farmers and ranchers today realize the preference for lighter and leaner meat cuts. They have done a good job in adapting production and marketing to modern requirements. Steers at 1,000 lb., hogs at 200 lb. and 90 lb. lambs now largely replace the heavier and fatter meat animals of a few years ago.

Packers too, even with this better raw material, now have to build an ever-increasing range of services into their finished products. Today meat goes to retail counters in unit packages—convenient for the refrigerator or on the kitchen shelf. Much of the preparation for the table is done in the packing-house kitchen. More and more of the meat sold today, particularly pork, is trimmed, boned, cured and smoked. There is also an expanding demand for cooked, sliced and prepackaged items, such as sausage and ready-to-serve products.

Modern methods of processing and distributing meat—all designed for the convenience of the consumer—enhance the value and broaden the market for the primary product. The price the customer pays reflects the built-in services now wanted with every package of meat. Trim and waste, as well, are largely eliminated during the processing operation.



| | per 1,000 lb. steer |
|--------------------------------------|---------------------|
| More popular steaks and roasts..... | 150 lb. |
| Less popular steaks and roasts..... | 130 lb. |
| Other cuts—stew beef, hamburger..... | 190 lb. |
| Total retail weight.... | 470 lb. |

The carcass of a meat animal is made up of cuts which vary in popularity. For this reason the price of each cut reflects how much there is of it, and how much it is desired by the consumer. The entire carcass—from steak to soup bones or stewing beef—must be sold. Prices act as the balance wheel between what consumers prefer, and all the kinds of meat there are to sell.



"DOC" BROWNELL'S CORNER

They say "nothing happens till a sale is made", but it looks to me like a lot has to happen in the meat business before the selling starts. I'd say it takes a lot of experience and "know-how", coupled with top-notch products,

to satisfy the assorted tastes and purses of thousands of consumers. By teaming up to give customers the quality and service they want, the partners in the livestock and meat industry are really doing a job. That's good business!

MEAT PACKERS COUNCIL OF CANADA
200 BAY ST., TORONTO 1

Other Uses for Prairie Acres

Continued from page 11

be increases, provided that big returns are not expected immediately.

Manure is the best all-round fertilizer, returning to the soil up to 80 per cent of the nutriment that animals consume.

IN the view of one of Alberta's leading livestock specialists, livestock production could be safely increased from the long-term point of view. Canada's population is increasing at the rate of one-third of a million people a year, and will require ever-increasing quantities of red meat. In 1955, Canadians ate a total of 150 pounds of meat per capita—the highest level in the country's history. Beef consumption reached a new high of 73.4 pounds per capita, compared with 72.0 in 1954. Pork consumption was 63.4 pounds per capita in 1955—an increase of ten pounds over the previous year.

Canada's exportable surplus of meat, he says, is now very small, and will soon disappear unless livestock production is materially increased. It is most desirable that the United States continues to be available for any surplus production.

Beef cattle increases are recommended for all three Prairie provinces, and especially Alberta. Small additions to existing herds, and a gradual build-up of new ones, are the best approach. It should be noted that steer prices kept up well in 1955.

Dairy cattle are a more doubtful proposition. Milk supplies are adequate in most areas, and expansion will depend on whether contracts can be made. Limited increases may be possible in milk shed areas adjacent to urban centers. Attention should be paid to improved feeding, such as better hay cut at the right time.

ONE livestock authority suggests, however, that it is good for the farmer and his family to have some cows and calves around, especially as some farms now use canned milk. Another suggestion is that milk and butter can be used as barter for other necessities. The disadvantages are that proper housing and equipment are expensive, water supplies may not be adequate, and competition from the large dairy producer may be overwhelming.

Hog prices have been discouraging, but the chance of converting grain into cash cannot be ignored, especially if there are suitable buildings already on the farm. A few added to existing herds in Manitoba, and similar increases in eastern Saskatchewan, and central and northwest Alberta, are the most that can be recommended at the moment, until farmers feel more confidence in the market.

Sheep farming is limited by the need for fencing, pastures and freedom from dogs, but there could be more sheep in Manitoba and Alberta, where practicable. Some increase in *poultry*, *eggs* and *turkeys* could be made, particularly in Manitoba and southern Saskatchewan. Any large increases in production could be disastrous at present, but the long-term prospects are more promising. Poultry should be

kept either in very small flocks for home consumption, or in large ones for commercial production. In-between flocks seldom pay.

Bees are one of the interesting by-products of mixed farming. They are good for legume seed production. A hive to an acre is recommended, unless there are plenty of wild bees in the neighborhood. But beekeeping is a long-term investment, owing to the cost of hives and other necessary equipment.

Special crops, chiefly oil seeds, have aroused considerable interest on the Prairies in recent years. New uses for vegetable oils, in cake mixes and paint for example, have increased demand; and the fact that Canada imports about 30 per cent of its oil seed requirements shows that there is room for expansion, especially if export markets can be found. Low protein areas can be used for oil crops, even at the risk of overproduction.

Rapeseed could be increased in Manitoba by about 10,000 acres, more could be grown in north and south-east Saskatchewan, and central and south Alberta. Rape grows well if weeds, and particularly wild mustard, are not a problem. It is advisable to grow crops under contract.

Soybeans are being put to many new uses, but the demand depends largely on markets in eastern Canada. Soybeans are not an easy crop to grow, and are recommended for parts of Manitoba. Heavy yields should not be expected.

Flax is highly recommended as an alternative crop for Manitoba, where acreages could be increased by about 300,000. There could be moderate increases in south and northwest Saskatchewan, and south and northwest Alberta. The demand appears to be good, but production has already risen spectacularly. Flax needs clean land, and there is some danger from frost, owing to late maturity. It is a good substitute for the wheat crop, and does well on summerfallow.

Sunflowers are the other principal oil crop. They are recommended for Manitoba only, and particularly in the south. The seeds are processed in the province, and demand might justify an increase of about 30,000 acres.

Sugar beets are an important crop in Alberta and Manitoba, but there is not much advantage in increasing the acreage at present. Top quality *turnips* have found a ready market in central Alberta, and the culls can be used as feed. Although there is scope for more *potatoes*, Manitoba farmers are recommended to concentrate chiefly on improving type and grade to meet competition from imports. Central Alberta could grow more potatoes, and there is a good market for seed.

Field peas and *beans* are successful in south Alberta under irrigation, but should be grown on a contract basis. Peas are suitable for northeast Saskatchewan and Manitoba, but success is limited by disease.

Canning crops are at their peak now. There could be an increase of several hundred acres of *strawberries* and *raspberries* in southern Manitoba, but irrigation is essential.

High-yielding crops of good quality *mustard* can be grown on clean summerfallow in parts of southern Alberta, normally on a contract basis. Returns

compare favorably with wheat, and this cash crop fits in readily with most crop rotations.

Corn is another strictly localized crop at present. The acreage in Manitoba could be increased to about 140,000 acres for grain and feed, and as a summerfallow substitute. Field corn for grain has not been successful in southern Alberta owing to the relatively short growing season, but good yields have been produced for silage, especially some of the hybrids bred for that purpose.

Buckwheat is a Manitoba crop alternative to wheat.

SPECIAL crops demand special skills, and preferably some experience to ensure a profit, and their advantages would depend on the total volume of production. Here is a case where the inexperienced should try a limited acreage, with a view to increasing it as knowledge and conditions improve. Standard equipment can be used, but special attachments are needed for combines. For row crops, cultivators can be adapted to spacing, but generally special crops do not change the usual tillage plan on grain farms. Seed is available in all cases, but should be ordered as soon as possible.

It would be a mistake to cut down over-all production of grain, but some readjustments among grain crops are one approach to the current bread wheat surplus. *Durum wheat* suffered a serious setback as a result of the rust epidemic in 1954, and there is some risk of that happening again. However, durum production could be increased in Manitoba, where it is regarded as the third alternative to bread wheat, after malting barley and flax. The acreage in southwest Saskatchewan should be kept at its present level, and in the northwest it is suitable if sown on the open prairie. It is regarded as a profitable alternative in southern Alberta, but is recommended only for Thatcher areas in the northwest. *Soft wheats* may be grown in Alberta, but marketing has been difficult recently.

Malting barley can be grown over a wide area in south and northwest Alberta. The black and wooded soils of northwest Saskatchewan are also suitable for malting and pearling barley, but in other parts of the province it should not be greatly increased. It is Manitoba's first choice as an alternative to wheat. *Feed barley* production should be continued as at present in Saskatchewan, but more could be grown in south and northwest Alberta.

Oats, as a forage crop, might be increased in Manitoba, but production in Saskatchewan should stay at the present level. Good varieties could reduce wheat acres in parts of southern Alberta, and there is a strong demand for registered seed in the northwest. *Rye* should hold its present place in Saskatchewan, but *winter rye* could be increased in northwest Alberta.

GENERALLY speaking, recommendations point to a decrease in wheat acreage. Coupled with this are suggestions for improvements in quality and yield by growing recommended varieties, and by making soil building, and erosion and weed control, permanent features of every farm program. Areas that can produce only lower protein spring wheat might do better in other lines of production,

and by reducing wheat acreage, would leave the more favorable areas to carry the main burden of high-grade wheat production.

There is nothing revolutionary in proposing alternatives to wheat, nor is it intended that 1956 should go down in history as the year when the face of the Prairies was changed. But some changes are inevitable if the future of Canadian agriculture, and of Canada as a whole, is of importance. The process has begun already, and there is now an incentive and the need to extend it.

It is impossible in one article to give all the recommended varieties for the different crops in each district, but this information is available from the experimental farms, universities, agricultural representatives and provincial departments of agriculture. Information on where seed can be obtained, and on recommended cultural practices, can be obtained from these same sources. V

All in The Family

by L. WEBBER

ONE evening recently, several of my brothers and sisters stopped off at the house for coffee. As we sat around the table, we chatted idly about this and that; then Lawrence made the chance remark, "Remember the time when . . ." That started the ball rolling, and an hour later found us still around the table, reminiscing about childhood days.

In the years when we were born, 1917-1930, we were considered an average size family—five boys and four girls. Nowadays, of course, people with their huge families of two and three, look askance when we mention that we were nine. Whatever they say about the disadvantages of large families, neither my father nor my mother, or any of us children ever regretted the family life we had. We may not have been rich in material things, but we were millionaires where laughter and love and sunshine were concerned.

One of our fondest memories was of the concerts and plays we used to put on for Mom and Dad. The ends of a wide board were placed on two apple boxes, and draped with curtains to provide the stage. We had all sorts of elaborate backgrounds such as sprays of lilacs or baskets of gladiolus. Our costumes might have appeared grotesque to outsiders, but to us they were masterpieces of art.

Mom and Dad sat in state, side by side, in two armchairs, with cushions arranged for their extra comfort. They both took these performances very seriously, giving praise when praise was due, encouragement when an act was somewhat wobbly, and the comfort of loving arms, when stage fright sometimes got the better of us and we burst into tears.

Courtesy was an attribute that was much stressed in our family. Even the youngest gradually learned the art of listening to Lawrence sing about 14 verses of "Cowboy Jack" and showing as much interest at the last verse about the lonely grave on the prairie as at the first verse when Cowboy Jack first fell in love with his maiden.

NOT infrequently we used to create our own plays. During one such play entitled, "The Holdup," I was

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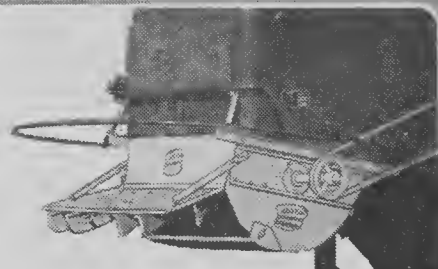
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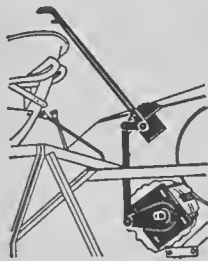
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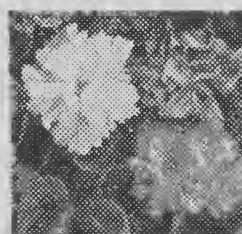
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being robbed of my jewels by two daring thieves. I screamed hysterically, broke down and cried, and really put on what I considered a sterling performance. Whilst this was going on I had my hands over my eyes, but I could hear the older bandit gruffly shout to the younger masked robber, "Douse the lights, Mac," then loudly and more violently, "Douse the lights, Mac, do you want the cops to get wise?"

There was complete silence. Cautiously I spread my fingers apart and peeked out. In the dead stillness that followed such a terrorizing scene, a pathetic little voice whispered back, "I can't reach them!"

The whole cast collapsed in gales of laughter. The curtain was rung down and we all adjourned to the kitchen for hot cocoa, buttered homemade bread and jam. A perfect finale! ✓

Newfoundland Farmer-Fishermen

by D. W. S. RYAN

Potatoes for family use, and grown the organic way, are the chief crop

NEWFOUNDLAND villagers are as much farmers as they are fishermen. In the coastal villages, nearly every family has a few gardens scattered over the place. Some of these gardens are meadows where hay is grown to feed the horse and sheep, and perhaps a goat or two. Other gardens are given over to timber and vegetable growing.

The vegetable patches may vary from the size of a dwelling to that of a small city block. Most patches are small, however, and yield just a few bushels.

The chief crop is potatoes.

This crop grows well and every yield is very good. Farmers suffer very little damage from blight, or wire worm.

This crop, like most village crops, is grown with natural fertilizer. Barnyard manure is used first of all, when the ground is plowed; and then, just as the plants are leafing through the ground, small sea fish, called caplin, are spread on the drills. These small fish strike in at the time the potatoes are ready for drilling, and are therefore used quite conveniently as a natural fertilizer. Rich in phosphate and nitrogen, they enrich the soil and hasten growth. Besides, they tend to make the plants resistant to disease and give the vegetable its full, sweet and natural flavor. Outport spuds, grown this way, are really a treat.

In many plots of ground no commercial fertilizer has yet been used, though there is a tendency within recent years to use more of the commercial powders than the raw natural fertilizers.

Many families have been working little garden plots for generations,

raising fine, healthy crops of vegetables the organic way. Much of the soil is rotated to ensure good crop production.

The main crop, potatoes, is planted in late May or early June, and is harvested in late September, or early October.

At planting time and digging time all hands turn out and help. The digging is done by hand, and a prong or spade is used to root out the potatoes. After they are dug they are culled as they are picked up and taken to the cellar. There they lie on the bedding for a few days before they are re-culled and chuted below into the bins.

The small spuds are used as feed for animals. Cut up raw, they make tasty mouthfuls for the pig, goats, horse, or sheep. Cooked, they make fine feed for the hens.

The stalks from the plants are not wasted. They are spread out on the ground, and dried and stored in the stable loft as fodder for sheep and goats.

Chief potato varieties grown are the Aaron Victory, Blue Mountain, Bear's Paw, and an early white variety. The potatoes are white and floury when they are cooked—at least those grown the organic way. This is one of the fine qualities of the small garden potato.

Very few families grow more than they need for home use. None grow them for anticipated sales. The crop is just enough to supply the family from harvest time to early digging time.

Newfoundland's potato crop turned out fairly well last year despite late planting, due to the wet, backward spring. ✓



The Newfoundland potato crop is grown almost altogether in family gardens kept rich with natural fertilizer including caplin, an abundant sea fish.

The Countrywoman

by AMY J. ROE

*Introduction to garden thoughts—
and important decisions pending
on national health insurance*

Who loves a garden
Finds within his soul
Life's whole;
He hears the anthem of the soil
While ingrates toil;
And sees beyond his little sphere
The waving fronds of heaven, clear.

CREDO

Who tends a garden, says his prayers
Without the benefit of beads
Or priests or books;
His altars raise their candles
In many knee-pressed nooks,
His incense veils and traces
The hymns on pansy faces.
And on the Sabbath day
Through aisles of pine and birch,
With Enoch—he walks to worship
In any man's church.

—by Louise Seymour Jones, published in a little book, entitled "Who Loves A Garden," a collection of essays and poems, as a memorial to her father Horatio Seymour, an American newspaperman.

EACH month of the year has its own distinctive features and, urgent claims on our time and attention.

Usually in February, the seed catalogues begin to appear. In spite of winter's grey skies, chill winds and snow—or perhaps partly because of our boredom with such things, we greet these advance heralds of spring with a special delight and pore over their pages. Our minds transport us to other seasons; the time of planting, of the first fresh growth or of full blossom. Almost our senses seem to be aware of new beauties in colors and scents. Plans begin to formulate, new adventures in planting lure us on and we may begin to draw up charts for planting flowers, shrubs and trees in the house-yard. At such time we forget or ignore the hours of labor ahead, the careful tending and the long days of patient waiting until our garden dreams can be realized.

Somewhat ruefully, we noted a recent news release to the effect that an area of 50,000 square feet of space is set aside in one of the buildings housing the Canadian National Exhibition projects, to demonstrate model homes and a "spring garden—with typical Canadian flowers and green lawns"—complete with masses of tulips and other flowers.

Again we are reminded that Canada is a wide, wide country; that Toronto is far off for most of us, as are the lovely early-spring-blossom areas East and West. Spring advances unevenly inland and sometimes may be delayed. But spring comes certainly to us! We will then set our feet on our own plot of ground, dig, delve and plant to our heart's content. Let those who live, surrounded by bricks and pavement, many in places where gardens are not possible—have conservatories, public parks and other planted display spots. Flower shows, like the seed catalogues are inspirational, but vastly more powerful in their effect. Each home garden plot owner has a spot, where a man or woman may try a hand at growing things, among which flowers will surely find a place. ✓

FEBRUARY, as other months, has its "special week"—National Health Week, observed from January 29 to February 4. Through the means of press, radio and public addresses we have been reminded of the importance of good health; the growth of health and welfare services across the provinces; and remarkable progress made in combating disease.



A favorite late-winter occupation—studying seed catalogues and laying out garden plans.

February, 1956, may well be set down as an epoch-marking point in one of the great social measures in Canadian history. At the very moment of writing these words a federal-provincial conference is in session at Ottawa. The stage is all set for the announcement of a concrete offer of the federal government to join, with the various provincial governments, in a national hospital diagnostic service and insurance program.

Certain points have already been made clear in pre-conference talks and discussions. The majority of the provinces, representing a majority of the people would have to ask for coverage before the federal government would go ahead with a plan—which if it found acceptance now, may well be in operation in many parts of the country by 1957. There would be an equalization of grants, the government of Canada sharing 50:50 with the province. The health insurance plan would be compulsory—everyone in Canada would be covered by it. There would be absence of restrictions as to the use of time in hospital.

Since their start, mostly shortly before the 1920's, rural women's organizations in Canada have been concerned with health and welfare. There existed then, a great lack of doctors, nurses, hospitals and institutions for the mentally disabled. A high percentage of mothers gave birth to babies in homes, inoculation against childhood contagious diseases was not in common practice; the science of human

nutrition scarcely recognized outside of university classrooms. Maternal and child mortality rates were high.

The subjects selected for study by rural women's groups had wide appeal and won much public support. The recommendations sent forward from provincial conventions were seldom ignored by government. Many of the requests made after thorough study, later became embodied in new or amended legislation.

Between 1920 and 1945 great changes came in the set-up of governmental machinery along health and welfare lines; with added departments, increased personnel, and budgets to handle the range of services offered. Usually these have been combined under one ministry. In 1944, the National Health and Welfare department was established. Expenditure of public funds by the federal and provincial governments have risen swiftly. Legislation for "baby bonus," old age security pensions and large grants for hospitals was enacted. It now becomes difficult for the average lay person to have a proper understanding of the areas of responsibility and financing as between the municipality, province and the nation.

Much light on these matters may well be provided by the discussions on a national health insurance plan, in the House of Commons, and the consequent press and radio news and comment. It concerns every citizen of Canada. ✓

Robin Hood Oats AMATEUR ART CONTEST



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\$4,500.00

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OVER **900**

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JUST DRAW AND COLOUR

THE FAMOUS FIGURE OF **Robin Hood**

PRIZE LIST

PRIZES FOR 3 AGE GROUPS

So all may have an equal chance, Robin Hood is awarding prizes to three age groups:

**Children 7 and under,
8 to 11, 12 to 15**

Enter as often as you like! Be sure to enclose box top or bag top from QUICK ROBIN HOOD OATS with each entry!

| | |
|---------------------------|----------|
| 3—1st prizes of | \$500.00 |
| 3—2nd prizes of | 200.00 |
| 3—3rd prizes of | 100.00 |
| 3—4th prizes of | 75.00 |
| 3—5th prizes of | 50.00 |
| 3—6th prizes of | 40.00 |
| 3—7th prizes of | 30.00 |
| 3—8th prizes of | 20.00 |
| 3—9th prizes of | 10.00 |
| 150—merit awards of | 5.00 |
| 750—consolation prizes of | 1.00 |

HERE'S WHAT YOU DO — READ THESE RULES CAREFULLY

1. Draw and colour the famous figure of Robin Hood.
2. This contest is open to all children up to 15 years, except children of employees of Robin Hood Flour Mills or its advertising agency.
3. Use entry blank in this ad. If you don't have an entry blank use a plain sheet of paper. Print all names, addresses and your age clearly. Don't forget to include your grocer's name and address — if you win, your grocer may win a prize too.
4. Attach drawing to your entry and send along with one box top or bag top from QUICK ROBIN HOOD OATS.

5. Send as many entries as you like, but be sure to enclose a box top or bag top with each entry.

6. All entries will be examined by an independent organization, and prizes awarded to the entries they judge best. The decisions of the judges will be final. All entries become the property of Robin Hood Flour Mills Limited.

7. Mail your entry to "ROBIN HOOD OATS AMATEUR ART CONTEST", Box 1577, Toronto. All entries must have sufficient postage and be postmarked not later than midnight, March 31, 1956.

Winners will be notified by mail.

YOUR ENTRY must be postmarked not later than midnight, March 31, 1956.

Mail to:
**ROBIN HOOD OATS AMATEUR ART CONTEST,
Box 1577, Toronto, Canada.**

Here's my drawing of ROBIN HOOD, and a box top or bag top from Quick Robin Hood Oats.

NAME.....MY AGE.....

ADDRESS.....

CITY OR TOWN.....PROVINCE.....

Name and address of grocer from whom you bought Quick Robin Hood Oats:

NAME.....

ADDRESS.....

Remember, if you win, your grocer may win a prize too! Fill in his name!



Quick Robin Hood Oats

the oats with the livelier flavour

Fruit of the Wise Men

Something of the early story of the banana and its later spread to southern and western tropical areas. How modern-day plantation cultivation methods combine with fast shipping to make the tasty, nutritious fruit available on the markets of many distant lands

by PHYLLIS A. THOMSON



were known only in southern and eastern seaboard cities of the United States. Today, we in Canada are able to secure a regular supply of bananas at reasonable prices, usually throughout the year.

The banana plant, often referred to as a "tree" cannot justify the title

be carefully chosen. It must be suitable for cultivation, easily drained and so located that the fruit can be conveniently transported to a shipping port. Once the land is selected, men begin to chop through the heavy underbrush of dense jungle forest. After the underbrush is cleared, drain-

rarely developed in cultivated varieties. Planting is done with pieces of "rootstock," obtained by digging up roots of banana plants and cutting them into the required sizes. A piece of rootstock, weighing three to four pounds is put in each hole. Each piece must have one or more sprouts or "eyes" like those of a potato planting. Bananas may be planted any month of the year.

Three or four weeks after the rootstock is planted, the first shoots appear above ground. Where shoots fail to appear, the stock is replaced. Only the stronger shoots are allowed to grow. As the shoots grow, each in turn develops its own root and eventually becomes a full-grown plant, with huge leaves. Then the bud and the blossom appear and finally the fruit, a single "bunch," bearing about 150 individual bananas. By the time a plantation is complete, row after row of plants are bearing fruit all year long. After harvesting the fruit, the plant is cut down. New shoots spring up from its root and a new crop gets underway — which means that production becomes almost continuous over a period of years.

THE plantation owner or operator must always be ready for emergencies. At times, excessive rains cause rivers to overflow their banks or change course. Great loss in large banana areas or even total destruction sometimes follows, as well as heavy damage to the main roadbed. A hurricane may sweep through a district, causing total loss of the crop. Winds of a velocity not exceeding 20 to 30 miles an hour often prove destructive to banana plantations, especially to heavy bearing plants ready for cutting. The weight of the bunch makes the plant an easy prey to wind.

Drought may seriously retard or damage fruit; ravages of insect pests such as locusts have sometimes to be combatted.

Bananas are not allowed to ripen on the plant even when they are to be eaten in the tropics. If ripened thus, the fruit is insipid and lacking in flavor. (Please turn to page 53)



At harvest time the plant is cut below the bunch by a cutter. With the aid of a long pole and knife, he eases the heavy fruit down to the shoulder of a backer, who totes it away.

THE story of the banana is long and romantic and includes adventures of explorers, missionaries and traders as well as researches of botanists and scientists. Little is actually known about its earliest history. Probably it had its beginning in moist, tropical regions of southern Asia.

We know that in 327 B.C. the armies of Alexander the Great found the banana plant flourishing in India. In all probability it had been there for centuries. Tradition has it that the sages of India reposed in the shade of the plant and refreshed themselves with its fruit and so it was named "Fruit of the Wise Men."

When people of ancient times journeyed to strange lands to establish new homes, they considered bananas so essential that they dried the main roots and carried them along to be planted again. In the same way, the plant may have been taken to the eastern coast of Africa.

From there it was probably carried westward across Africa to the Guinea coast by the early Arabs, who were great traders. When daring Portuguese explorers discovered the Guinea coast in 1482, they took the plant to the Canary Islands, where they had established colonies and called it by its African name "Banana."

A few years after Columbus' famous voyages of discovery to America, Father Tomas de Berlanga, a Spanish priest, went as a missionary to the island of Santo Domingo, taking along a few banana roots from the Canary Islands. The next great step in the world journey of the banana was from these islands off the coast of Africa, across the Atlantic to the New World. Other missionaries followed the priest's example, to ensure a plentiful supply of food. In the course of time, the banana plant spread to other southern islands, until eventually it reached Central America where it is now most widely cultivated.

It was many years after bananas came into general use in the American tropics that they were found in the markets of the temperate zone. Sailing ships in those days were slow and unreliable. Fifty years ago bananas

since there is no wood in it. The trunk or stalk is made up of closely matted leaves. The top leaves are from 8 to 12 feet long and about 2 feet broad. They rise almost vertically and spread out, making the banana plant look like a huge palm. Some 13 to 15 months after planting, the plant is ready to bear fruit. At maturity it reaches a height of from 15 to 30 feet and its stalk is from 9 to 16 inches thick.

A bunch of bananas is made up of clusters called "hands," each having "fingers" containing from 10 to 20 bananas. An average bunch has from 6 to 14 hands. The weight of a 9-hand bunch may be from 50 to 75 pounds. Land for a banana plantation must

age ditches are dug to cope with water from the torrential rains, common in these areas. A railroad if not already present, must be built to carry the bananas to the nearest port. Numerous other things have to be done: constructing light, narrow tramways or "feeder" lines to connect the different plantations areas with the main railroad, building homes for workers and stringing telephone lines.

After the land is cleared and drained, it is marked out so the plants may be arranged in rows. Seeds of the banana are





STRETCH!

BEND!



REACH!

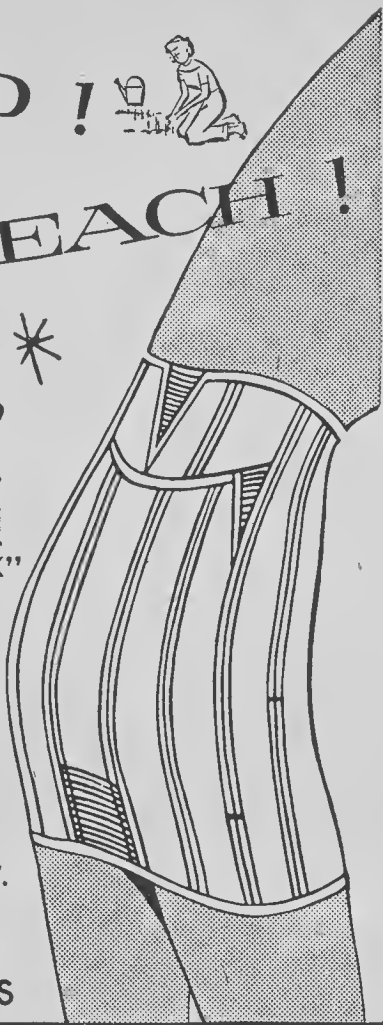
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WINNIPEG CANADA

Special Occasion Cake

Dress up basic cake recipe to provide attractive and delicious dessert



Gaily decorated heart-shaped cake makes perfect valentine for the family.

FRESHLY baked, feathery light cake lends a party atmosphere to even an ordinary occasion. Whether it's the family's favorite spice cake or an intriguing new recipe you are trying, the same care should be taken in following the directions exactly.

Creaming fat and sugar is the secret of the soft, "velvety" texture of cake made by the "conventional" method. This first important step serves to work air into the batter, producing a light, high cake. For the best results have ingredients at room temperature.

To serve cake in a slightly different fashion, slice a thick layer in halves, fill with lemon filling and serve with icing or heaps of whipped cream. Your cake will then be dressed up as a torte. It makes a splendid dessert for that special occasion dinner.

For a valentine touch, bake a white or chocolate cake in the traditional heart shape. Serve it on your prettiest plate, surrounded by nosegays of tiny, heart-shaped red gumdrops on food picks. Circle a paper doily around the picks and tie with a red ribbon. Insert one nosegay—without the ribbon tie—on top of the cake. "Be My Valentine" in red icing adds to the festive appearance.

Valentine Cake

- | | |
|----------------------|--------------------|
| 1 c. butter | 2 tsp. double act- |
| 2 c. sugar | ing baking |
| 3 1/4 c. sifted cake | powder |
| flour | 8 egg whites, |
| 1 c. milk | stiffly beaten |
| 1 tsp. vanilla | |

Cream together butter and sugar until light and fluffy. Sift together dry ingredients and add alternately with milk and vanilla. Beat well. Fold in egg whites. Pour into 3 round, 8-inch paper-lined cake pans (or two 9-inch pans). Bake in a moderate oven (375° F.) for 25 to 30 minutes.

Filling for Valentine Cake

- | | |
|---------------|---------------------|
| 1/2 c. butter | 1 c. seeded raisins |
| 1 c. sugar | 1 c. chopped |
| 8 egg yolks | pecans |
| Brandy or rum | 1 tsp. vanilla |
| extract | |

Cream butter and sugar. Add beaten egg yolks and cook over hot water until thick (15 to 20 minutes). Add remaining ingredients. Cool. Spread between layers of cake. If filling is not stiff enough after cooking, reheat over direct heat and stir until thick.

Icing for Valentine Cake

- | | |
|------------------|----------------|
| 2 1/2 c. sugar | 2/3 c. water |
| 1/8 tsp. salt | 2 egg whites |
| 1/3 c. dark corn | 1 tsp. vanilla |
| syrup | |

Dissolve sugar, salt and syrup in the water. Beat egg whites until foamy. When syrup reaches boiling point, pour 3 tablespoons of syrup mixture into egg whites. Continue beating eggs until stiff but not dry. Boil syrup mixture to 240° F., or until it spins a thread at least 10 inches long, then pour over egg whites, beating until the frosting begins to lose its gloss and begins to hold shape. Add vanilla. Spread over cake. If the frosting becomes hard, add a drop or two of hot water to the mixture. This icing does not form a crust which cracks when cutting the cake.

Chocolate Chiffon Roll

- | | |
|--------------------|-------------------|
| 3/4 c. sifted cake | 1/4 c. salad oil |
| flour | 3 egg yolks |
| 3/4 c. granulated | 6 T. water |
| sugar | 1 tsp. vanilla |
| 2 tsp. baking | 1/4 tsp. cream of |
| powder | tartar |
| 1 tsp. powdered | 3 egg whites |
| instant coffee | Icing sugar |
| 1/2 tsp. salt | 1/2 pint heavy |
| 1/4 tsp. cinnamon | cream, whipped |
| 1/4 c. cocoa | |

Mix and sift first 7 dry ingredients into a deep bowl. Make a well and add in order, salad oil, egg yolks, water and vanilla; beat with spoon until smooth. Add cream of tartar to egg whites; beat until egg whites form very stiff peaks. Fold first mixture gently into egg whites until well blended. Fold, do not stir. Line a 10 x 16-inch jelly roll pan with waxed paper and grease paper lightly; turn batter into pan. Bake in a moderate oven (350° F.) for 12 minutes or until cake springs back when touched lightly with finger. Turn out on a clean towel covered with icing sugar. Peel off waxed paper; cut off crisp edges. Roll up in towel; spread cake with whipped cream. Roll up cake again and wrap firmly in waxed paper. Chill about 1 hour or until

ready to serve. Yield: 10 to 12 servings.

For the smaller family, divide rolled cake in half; wrap in aluminum foil and store in freezer compartment for future use. ✓

Lemon Torte

| | |
|-------------------|------------------|
| ½ c. butter | 2 c. sifted cake |
| 1 c. sugar | flour |
| 2 eggs | ½ tsp. salt |
| 1½ T. lemon juice | ½ c. milk |
| ½ tsp. soda | |

Cream sugar and butter. Add eggs one at a time. Beat well after each addition. Add lemon juice. Combine sifted flour, soda and salt. Add dry ingredients alternately with milk. Pour batter into a 9-inch round pan 2 inches deep. Bake in a moderate oven (350° F.) for about 45 minutes. Remove from pan and cool.

Filling

| | |
|-------------------|--------------------|
| 5 T. lemon juice | ¾ c. water |
| 1 T. grated lemon | 2 T. cornstarch |
| rind | 2 T. water |
| ¾ c. sugar | 1 egg yolk, beaten |
| ½ tsp. salt | 1 T. butter |

Combine lemon juice, rind, sugar, salt and water and bring to a boil. Combine cornstarch and 2 tablespoons water to make a paste. Stir cornstarch paste into sugar syrup. Stir and cook until mixture is clear, and thick, about 3 to 4 minutes. Remove from heat. Add a few tablespoons syrup to egg yolks, then add yolks to syrup, stirring constantly. Cook and stir 2 minutes. Add butter. Cool.

Icing

| | |
|---------------|-------------------|
| 1 egg white | Dash salt |
| ¾ c. sugar | 1 T. grated lemon |
| 1½ tsp. lemon | rind |
| juice | 2 T. toasted |
| 3 T. water | coconut |

Combine all ingredients in top of double boiler. Stir to blend ingredients thoroughly. Cook over rapidly boiling

water 3 to 4 minutes without stirring. Remove from heat and beat with rotary or electric beater until icing stands in peaks.

To Combine Torte: Split cooled cake to make 2 layers. Spread cooled filling over bottom half of cake. Spread frosting on top. Sprinkle grated lemon rind and toasted coconut on top. ✓

Coupons and Box Tops

A LARGE brown manila envelope is thumb-tacked inside my lower kitchen cupboard. I drop into this coupons, box tops and labels from canned goods. I have been doing this for some time. When an interesting offer is made by some company, I usually have the necessary information and enclosure on hand.

Advertisers frequently make trial offers of goods and these are of interest to the housewife. Their bargains are genuine. Sometimes there is a time limit on the offer. I consider the chits we receive periodically in the mail, truly money-saving coupons. I put them aside in the brown envelope and often use them when I make up a grocery list. The pennies saved in this way add up to dollars.

Then, too, I save by paying attention to advertisements, in which premiums are offered. In this way I accumulate new and interesting items. Some of these can be used as party favors, a shower gift or a little token taken along when I go visiting in a friend's house. During the past year I have put aside: a set of individual casserole dishes, a stainless steel can-

ster set, two T-shirts for a child, two pairs of men's socks, a cuddly doll with her complete nurse's outfit and a box of imprinted stationery. Total cost—about \$8 and assorted box tops and labels.

Most offers state that you should allow about six weeks for delivery. It is well to remember this point if you plan to shop in this way. Start early this year by setting up a special "pocket envelope" or box file for these interesting little slips or clipped advertisements.—Elizabeth C. Touchette. ✓

* * *

An effective duster for dusting grooves and troublesome corners in furniture is a small one- or two-inch paint brush; the soft hairs of the brush reach places that a cloth can't touch. Keep one in your housecleaning apron pocket, or in your basket of cleaning supplies. ✓

* * *

Shelf paper in the pantry gets dirty and has to be changed so often that it is better to cover shelves with oilcloth. When they are spotted or dusty you have only to swish your dishcloth over them. Seal the shelf edges with scotch tape to prevent dirt from getting under the oilcloth and to keep it from curling. ✓

* * *

Make lunchbox surprises by standing animal crackers in partially hardened semi-sweet chocolate that has been melted, poured in a greased dish to a thickness of ¼ to ½ inch. Cut in bars when firm. ✓

Zonitors

OFFER SO MANY
EXTRA ADVANTAGES



Powerfully Effective and Long-lasting—yet so safe to use!

Zonitors, the convenient, easy method of ensuring feminine hygiene. These dainty, greaseless vaginal suppositories completely deodorize, guard against infection and will kill every germ they touch. Yet Zonitors are absolutely safe to the most delicate tissues. Enjoy their extra advantages today, inexpensively!

UP TO **\$100** IN A MONTH
JUST FOR WEARING
AND SHOWING
LOVELY DRESSES

Ladies—here's your chance to get beautiful dresses without paying a single penny! And make up to \$100 in a month just by wearing and showing them to your friends. Take your choice of many glorious models, given to you as a bonus. No obligation—no canvassing—no experience. It's our way of advertising our unbeatable styles. Everything sent FREE. Send your name, address and dress size on postcard. But hurry! This new plan is so popular, openings are limited.

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One Basic Dough makes 3 Delicious Bun Specialties!

Needs no
Refrigeration



Easy as 1-2-3 with new Active Dry Yeast

Never did buns rise so light—so deliciously tender! And 3 table triumphs from the same dough! When you bake at home get perfect risings every time with Fleischmann's Active Dry Yeast.

BASIC ONE-RISING SPECIALTY DOUGH

Measure into a large bowl

1 cup lukewarm water
2 teaspoons granulated
sugar

and stir until sugar is dissolved.

Sprinkle with contents of

2 envelopes Fleischmann's
Active Dry Yeast

Let stand 10 minutes, THEN stir well;
stir in

1¼ cups lukewarm water
3 teaspoons salt

Stir in

4 cups once-sifted bread
flour

and beat until batter is smooth and
very elastic.

Cream in a large bowl

¾ cup butter or margarine

Gradually blend in

¾ cup fine granulated sugar

Gradually beat in

3 well-beaten eggs

Add to yeast mixture, about a third
at a time, beating well after each
addition.

Mix in

3 cups more once-sifted
bread flour

Divide soft dough into 3 bowls to
finish as three specialties.



1. Butterscotch Nut Buns Melt 3 tablespoons butter or margarine in 8-inch square pan; brush sides of pan with fat; mix in 1 tablespoon corn syrup, ½ cup lightly-packed brown sugar and ½ cup broken walnuts or pecans. Combine in a shallow bowl ½ cup sugar, 1 teaspoon cinnamon and ⅛ teaspoon nutmeg. Cut out rounded spoonfuls of dough, coat with cinnamon mixture and place in pan; sprinkle with any remaining spiced sugar. Cover and let rise until double in bulk. Bake in moderately hot oven, 375°, about 35 minutes.

2. Cheese Pull-Aparts Line bottom of

a greased 8-inch square pan with greased waxed paper. Cut half of dough into rounded spoonfuls; place in pan; sprinkle with 2 cups shredded cheese. Spoon remaining half of dough on top; grease tops. Cover and let rise until doubled in bulk. Bake in moderately hot oven, 375°, about 35 minutes.

3. Seed Buns Cut out rounded spoonfuls of dough and drop into greased muffin pans—each spoonful should about half fill a pan. Brush with melted butter or margarine; sprinkle with poppy seeds. Cover and let rise until doubled in bulk. Bake in moderately hot oven, 375°, 20 to 25 minutes.

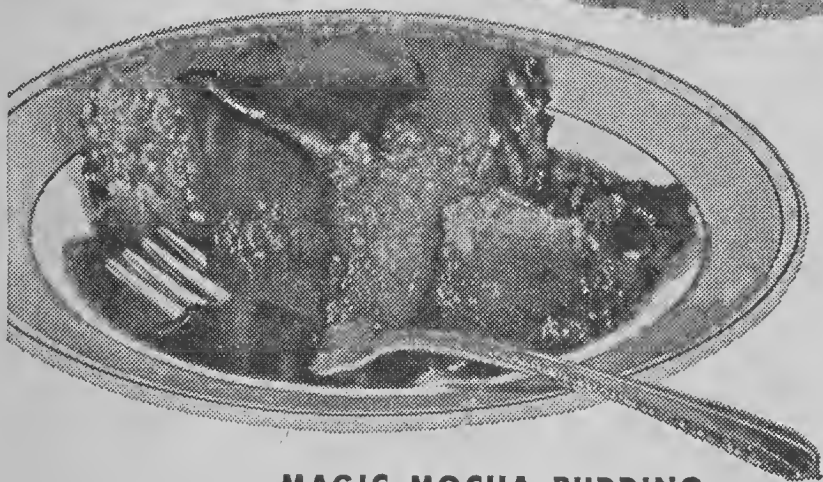
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Everyone tastes the difference in a dessert you make yourself!



MAGIC MOCHA PUDDING (Self-sauced with Chocolate)

3 ounces (3 squares) unsweetened chocolate
1 1/2 tbsps. corn starch
2 cups fine granulated sugar
2 1/2 cups water
1 1/2 cups once-sifted cake flour
2 1/2 tps. Magic Baking Powder
1/2 tsp. salt
2 tps. powdered instant coffee
6 tbsps. butter or margarine
1 egg, well-beaten
1/3 cup milk
1/2 tsp. vanilla

Melt the chocolate in the top of double boiler. Combine the corn starch and 1 1/2 cups of the sugar and stir into melted chocolate. Stir in water. Cook over low direct heat, stirring constantly, until sauce comes to the boil; cover and keep hot over boiling water until needed.

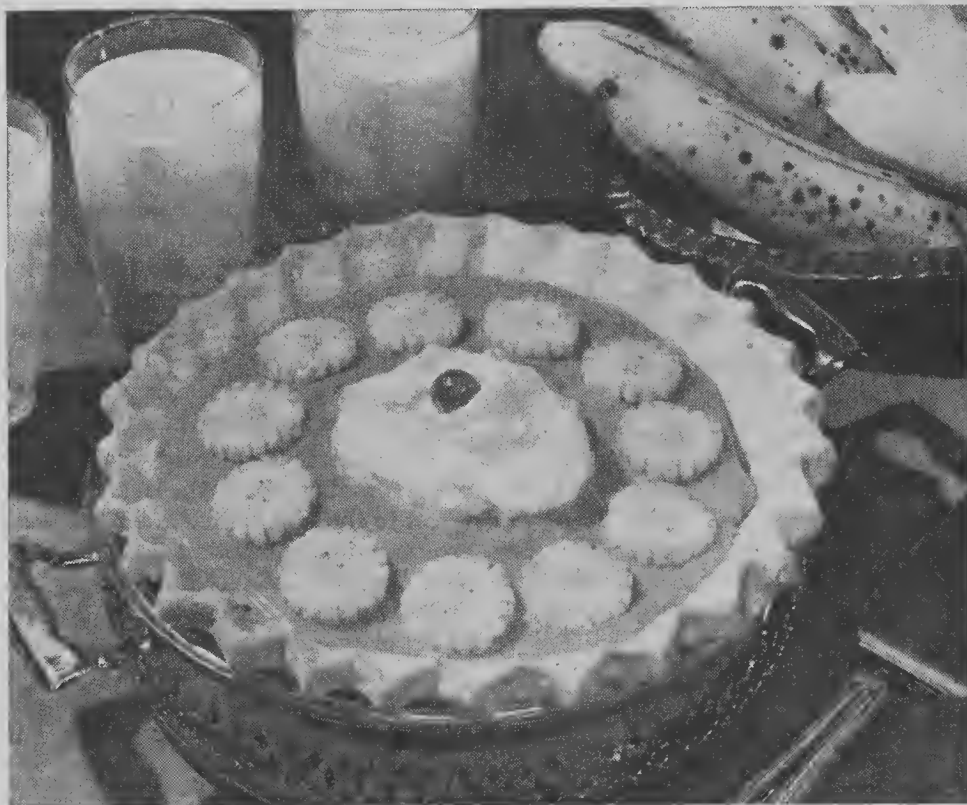
Grease a 6-cup casserole. Preheat oven to 350° (moderate).

Sift flour, Magic Baking Powder, salt and instant coffee together three times. Cream butter or margarine; gradually blend in remaining 1/2 cup sugar. Add well-beaten egg, part at a time, beating well after each addition. Measure milk and add vanilla. Add flour mixture to creamed mixture about a third at a time, alternating with two additions of milk and vanilla and combining lightly after each addition. Turn batter into prepared casserole. Pour 2 cups of hot chocolate sauce over batter. (Keep remaining sauce over hot water to serve with pudding.) Bake pudding in preheated oven about 50 minutes. Pass remaining hot sauce.

Magic costs less than 1¢ per average baking

The Versatile Banana

Flavorful and delicious, bananas add variety to desserts and main courses



Creamy rich banana butterscotch pie makes gala winter dessert.

BANANAS—green-tipped, all yellow or fully ripe will add a new flavor note to meals in 1956. The variety of ways in which they can be used may amaze you. Still a favorite breakfast fruit, they are delicious sliced over hot or cold cereal or served with rich cream. Cooked bananas, served as a vegetable, add flavor and variety to meat grills and vegetable dishes. Bananas in baked goods—muffins, breads and cakes make good eating. Mashed and used in batter, they produce a mellow, fresh-fruit flavor and help keep foods moist and fresh.

It is not necessary to remove or scrape off the "strings" that sometimes cling to the pulp of bananas except for infant feeding. The "strings" are edible but not as fine in texture as the pulp. To keep sliced or cut bananas from turning dark, prepare them as close to serving time as possible. If necessary to prepare them in advance, dip pieces into or sprinkle with canned pineapple, grapefruit, orange, lemon or lime juice.

Banana Butterscotch Pie

3/4 c. firmly packed brown sugar
5 T. flour
1/2 tsp. salt
2 c. milk
2 egg yolks, slightly beaten
2 T. butter
1/2 tsp. vanilla extract
3 bananas
1 baked 9-inch pie shell

Use ripe bananas. Combine sugar, flour and salt in top of double boiler. Add milk slowly, mixing thoroughly. Cook over rapidly boiling water until well thickened, stirring constantly. Cook 10 minutes longer, stirring occasionally. Stir small amount of hot mixture into egg yolks; then pour back into remaining hot mixture while beating vigorously. Cook 1 minute longer. Remove from heat and add butter and vanilla. Cool. Peel and slice bananas into pie shell and cover immediately with filling. Garnish with ripe banana slices just before serving.

Banana Fritters

Melted fat or oil
3 to 4 firm bananas
1/4 c. flour
Fritter batter

Use all yellow bananas. For deep-fat frying, have deep kettle 1/2 to 3/4 full of

melted fat or oil. For shallow frying, have 1 inch of melted fat or oil in frying pan. Heat fat to 375° F. or until a 1-inch cube of bread will brown in about 40 seconds. Peel bananas and cut each into 3 or 4 diagonal pieces. Roll in flour. Dip in fritter batter, completely coating banana pieces with batter. Deep-fat fry or shallow fry in hot fat 4 to 6 minutes, turning fritters frequently to brown evenly. Drain on a rack. Six to eight servings. Serve very hot with main course or as a dessert with a hot fruit sauce or sweetened whipped cream.

Fritter Batter

1 c. sifted flour
2 tsp. baking powder
1 1/4 tsp. salt
1/4 c. sugar
2 tsp. melted shortening
1 egg, well beaten
1/3 c. milk

Sift together flour, baking powder, salt and sugar. Combine egg, milk and shortening. Add to dry ingredients and mix until batter is smooth. This is a stiff batter and it makes a crisp fritter which will stay crisp for 15 to 20 minutes. This batter should not be thinned down.

Banana Meat Loaf

1 lb. ground raw beef
1 T. chopped onion
1 T. salt
1/4 tsp. pepper
1 c. soft bread crumbs
3/4 c. mashed bananas (1 to 2 bananas)
1/2 tsp. dry mustard

Use all yellow or slightly green tipped bananas. Mix together meat, onion, salt, pepper and crumbs. Combine bananas and mix well. Form mixture into a loaf and place into a well-greased baking pan (8 1/2 x 4 1/2 x 3 inches). Bake in moderate oven (350° F.) about 1 hour, or until loaf is done. Four to six servings.

Banana Tea Bread

1 3/4 c. sifted flour
2 tsp. baking powder
1/4 tsp. soda
1/2 tsp. salt
1/3 c. shortening
3/4 c. sugar
2 eggs, well beaten
1 c. mashed bananas (2 to 3 bananas)

Use fully ripe or all yellow bananas. Sift together flour, baking powder, soda and salt. Beat shortening until creamy. Add sugar gradually and continue beating until light and fluffy. Add eggs and beat well. Add flour mixture, a small amount at a time, beating after each addition

until smooth. Turn into a well greased bread pan (8½ x 4½ x 3 inches) and bake in moderate oven (350° F.) about 1 hour and 10 minutes. Makes 1 loaf.

Banana Milk Shake
1 banana, peeled 1 c. cold milk
Use fully ripe banana. Slice banana into a bowl and beat with rotary beater or electric mixer until smooth and creamy . . . or press banana through medium mesh wire strainer with a spoon. Add milk and mix thoroughly. Serve cold. Makes 1 large or 2 medium-sized drinks.

Variations:
Banana Chocolate Milk Shake: Add 1 T. chocolate syrup before mixing milk shake.
Banana Frosted Milk Shake: Add 3 T. vanilla ice cream before mixing milk shake.
Banana Pineapple Milk Shake: Substitute ¼ c. canned, unsweetened pineapple juice for one-fourth of the milk before mixing milk shake.
Banana Spiced Milk Shake: Sprinkle nutmeg on top of milk shake, just before serving. V

Canning and Preserving in 1899

by LUCY M. ELEY

THE average Canadian housewife has by now got her preserving closet well stocked with canned peaches, and pears, and jams and jellies of various sorts. She has had the aid of many labor-saving devices, and foolproof recipes, telling her the exact number of minutes to boil, and the exact quantities of sugar and fruit to be used.

This is a far cry from the old days, to judge from the Dominion Cook Book, first published in 1899. All branches of cookery are dealt with, and some of the recipes might make us sigh for happier times. For instance have you ever tasted giblets stewed in cream, or pancakes made with eight eggs and a pint of cream to one cup of flour? Our forebears certainly ate well, but then they probably needed to. For when you come to the chapters on preserves and jellies and jams, you realize how hard housewives of early times must have worked.

Besides the big black iron stove, needing constant refuelling, the copper or brass kettles and boilers, the bottles and jars, Mrs. 1899 needed a good supply of bladder, a bundle of hay, paper to make covers for her jellies, and of course the fruit, which she was advised to gather on a sunny day.

Before anything was done to the fruit, the sugar had to be clarified. To do this the housewife put six pounds of sugar into a preserving pan and covered it with five pints of cold spring water. Just any water wouldn't do, it must come from a spring it seems. Then she beat the white of an egg into another pint of water and added that to the sugar. She boiled it, skimmed it, boiled it again, threw in half a cup of cold water, skimmed it, strained it through a napkin. Lo and behold, a syrup ready for use!

By this time, instead of that cup of cold water, the modern housewife would be ready to throw in the sponge, and settle for a can of peaches from the corner store. Not so the housewife of 1899! After preserving her peaches in the syrup she had so

laboriously prepared she might decide to bottle some gooseberries. It was here that the bladders and the hay came into the picture.

The fruit, picked on a fine day, and not too ripe, was topped and tailed, and then packed in bottles. Pieces of bladder were tied around the necks of the bottles, which were then placed in a boiler of cold water, each bottle being surrounded with hay, to prevent breakages while boiling. When experience told her that the fruit was cooked (the book says that "the fruit will have sunk considerably in the bottles when done"), she removed the boiler from the fire and left the bottles in the water to cool. She could either leave the bladders on or she might decide to seal the fruit with corks. In the latter case, after removing the bladders, she filled the bottles with sugar, then with the corks close at hand, she lit two matches in the mouth of each bottle, corking it quickly before the gasses had time to escape. The housewife of other days had to be a sleight-of-hand artist as well as a good cook.

Jams and jellies were boiled for three-quarters of an hour. Perhaps that is why no mention is made of sterilizing jars before use. After the jars were filled, a piece of oiled writing paper was laid on top of the jam, and then a second piece, brushed with white of an egg to exclude the air, was tied on. If she suspected her store cupboard of

being damp, Mrs. 1899 was strongly advised to have the first paper dipped in brandy.
But damp or not, that store cupboard, with its green grape jam, bottled gooseberries, preserved melons and citrons, quinces and marmalades, sweet peach pickles and mixed fruit jellies must have been a pretty tempting place. V

Making Flowers Last Longer

Flowers, even at the height of the floral season, are very precious and we like them to last as long as possible. Here are a few hints which may help keep cut flowers fresh and lovely for a longer time.

A few pennies in a vase of tulips will prolong their loveliness. Copper also has considerable influences on roses and they will last longer if put into a copper bowl. If sugar is added to the water in a vase of delphiniums or larkspur, the flower heads will not drop petals so quickly. Charcoal sprinkled in the vase that contains daffodils and narcissi will help to keep them fresh. It is also an advantage to add some charcoal to the loam mixture in which you plant your tulip, daffodil and narcissi bulbs. — Effie Butler. V



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For Burns and Scalds



Is Your House Too Noisy?

Consider the din-makers and steps which can be taken to gain some peace and quiet

by RUTH HUMPHRYS

EVEN the most devoted wife and mother relishes the times when husband and children are elsewhere and she can have the house to herself. She admits she enjoys the peace and quiet. Home is supposed to be a retreat from the noises and frustrations of our worlds, yet too often the din in a family house can be likened almost to that in a factory.

The medical profession warns that noise is actually detrimental to our

health. It plays havoc with our nerves, wrecks emotional stability and makes thinking nigh-on impossible. The intelligent homemaker who wants to make her home a more pleasant place to live in and work in should plan to take constructive steps to cut down on noise.

We all know at least one family whose house seems to be in a continual uproar. The radio blares away, full-throated and unheeded. Various mem-

bers of the family hold long-distance conversations from cellar to first floor and first floor to second. The optimists try to make contact from cellar to the third. The door and telephone bells are shrill, and the more children in the family the more frequently the insistent rings are heard. Too much floor area is bare. Highly polished floors may look attractive but they do nothing to cut down the clatter of hurrying feet. Pots and pans are stored in such a way that to get a particular one out means the noisy removal of several others. It all adds up to bedlam with frayed nerves the net result.

If yours is such a house, why not do something about it? You may not be able to sally forth and buy broadloom to cover your floor space, but rubber stair treads (and you can get attractive ones in colors which give the effect of carpeting), will do much to eliminate noisy scampering up and down stairs. Those scampering feet can frequently be clad in rubber-soled shoes. If new floor coverings are on your list and your budget doesn't run to rugs, don't overlook cork, rubber, and linoleum floor coverings available today in a wide range of attractive designs. They all help to lessen the din.

A few rules won't hurt anybody either. We all enjoy the radio when we are actually listening to a favorite program. We definitely don't need it as a background to doing homework, making a bird house, or running the washing machine. When a member of the family must hear a particular program then that individual should sit down beside the radio and listen to it, keeping the volume down to a reasonable level. An inexpensive radio in a child's bedroom or basement playroom can keep some of Junior's more violent pet programs from shattering the peace and quiet of the living-room.

"Noise" and "child" are pretty well synonymous terms, but no child is going to be affected emotionally if he learns to abide by the "no-shouting-from-room-to-room" rule. If he wants to ask a question he can learn to come to the room, usually the kitchen, where his mother is. "I can't find . . ." "Where's my . . ." bellowed downstairs a dozen times a day makes even the most conscientious mother forget she's molding the character of a citizen of tomorrow.

These same future citizens and their circle of friends can learn too that the house is not a parade ground. Cowboy and Indian games and wrestling matches should be staged out-of-doors. The living-room is not an arena. When the enthusiastic participants call to organize such an activity, an inexpensive door-chime is less insistent than the shrill ring of a bell.

The kitchen produces its own share of the din. Pots and pans hung up and lids in a rack cause considerably less noise than pots and pans and lids stacked in a drawer. Give a little thought to what produces the noise in your house and then take some time to re-organize and control your particular noise-makers. Home will be a more relaxing place for everyone and it will pay off in better manners and healthier nerves. v

* * *

If your nail polish chips, repair by moistening a brush lightly in polish remover and carefully spread the polish already on the nail until it covers the bare spots.—T. Otsu. v

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Novel Needlework

Clever touches add finished look to tot and teenager items

by ANNA LOREE

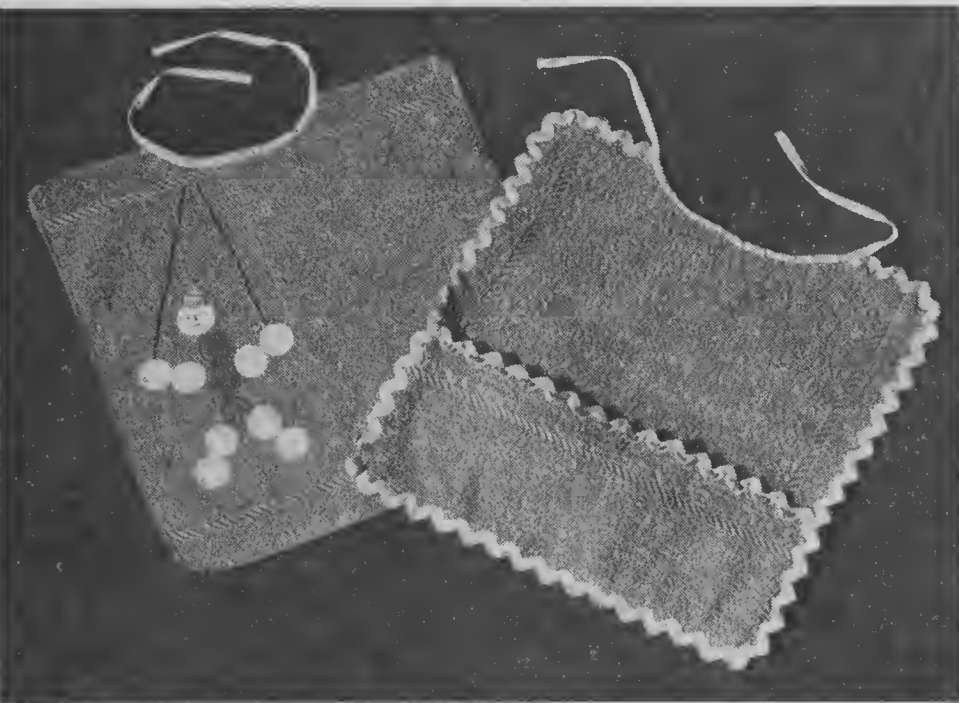
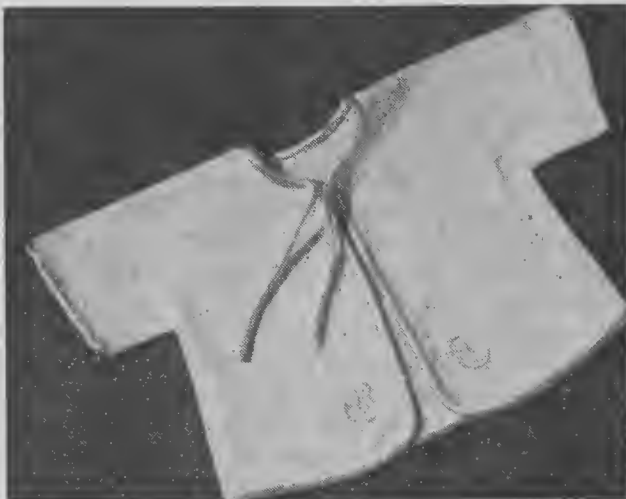
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Design No. E-2590

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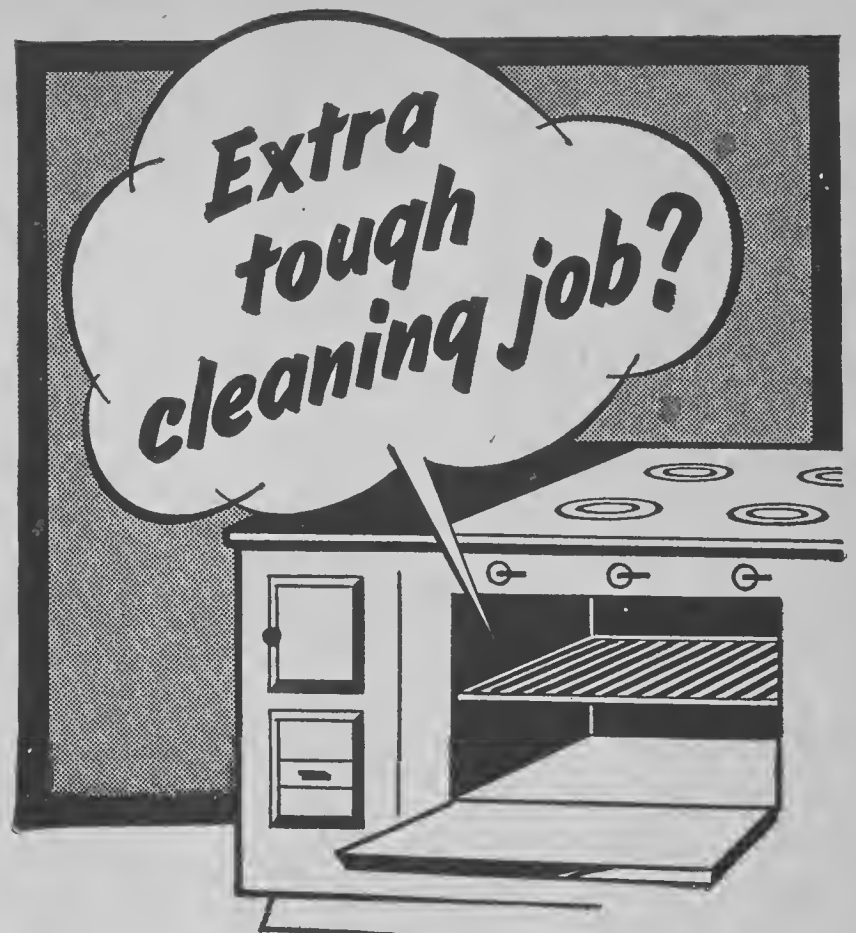


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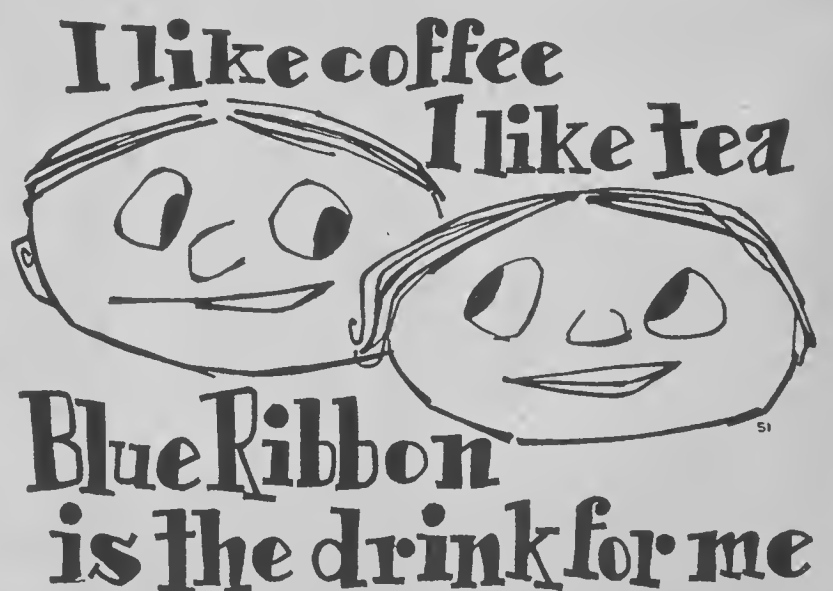
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A Lady Settles a Doubt

by BERYL H. SCOTT

DO animals reason things out, or are they guided only by instinct? For several years this has been a good-natured argument between my wife Judy and me. I freely admit that her pet spaniel is a fine looking specimen, but he is dumb in every sense of the word. She contends he has more brains than some men she knows. Since that statement has never been disproved by me, matters stood thus, until the day we made our eventful trip up to the main shaft of the old Cariboo mine.

The Cariboo is one of a group of long-abandoned silver mines which attracted much attention to our district during the 1880's. Of this group, the Cariboo was the heaviest producer. Eventually like all good things, even the richest mines come to an end. Operation site of the great company, nestling in the lonely hills, became nothing more than a cluster of deserted buildings, another "ghost town."

As far as Judy and I are concerned, the most interesting surviving features of these old mine sites are the picturesque, unused roads that wander through the valleys from one location to another. Our favorite is the road that leaves the Cariboo's lower adit and winds around the back of the hill and up to the main shaft at the top.

On the day of our memorable walk, Judy and I drove out and parked our car at the lower adit. It was late October, the weather was mild and bright—a bonus for the long winter ahead. Except for fallen leaves, made slippery by late autumn rains, the road was in fair shape. As we approached the main shaft from which the shafthouse had long since disappeared, Judy hung back.

"This black hole always gives me the creeps," she said and shuddered. "If only it were filled with water it wouldn't be half so spooky."

She was quite right. Even filled with water it would be an almost impossible feat for a lone victim to pull himself out of the shaft. The shifting mine waste from the enormous dump had gradually worked its way around the mouth of the shaft until it formed a funnel straight down into the gaping black hole. Moreover, contrary to government regulations, this almost forgotten horror had no fence around it.

The road ended at the shaft. From there we pushed our way through a tangle of dogwood to a low cliff some 50 feet to the north. After climbing to the top we sat down and dangled our legs over the ledge.

"How about one of those sandwiches in your coat pocket?" I suggested. "This is as good a place as any to have a rest."

The warm sun and the soft south wind from across the valley played gently over our faces. Except for the mine shaft, the dump, and the end of the road—all three of which were clearly visible from our perch—we could have persuaded ourselves that we were the first to set eyes on this desolate bit of Canada. Dreamily we sat and ate, and no word passed between us.

My thoughts went back to the days when silver flowed down to the stamp mill on the creek. If we had been sitting on this same ledge 70 years ago we should have seen the mine at its busiest. In those days heavy draft horses came clomping up the road. Groaning, creaking hoists lifted the waste to the dump. Shouts and swearing of hard-working men echoed across the valley. Now all was quiet and still.

I looked at the enormous quartz and calcite dump, thousands of tons of it still sparkling in the afternoon sun. Apparently it wouldn't pay to widen the road and send trucks up here to haul the stuff away. Who would want it? Waste was an appropriate name for this by-product of the mine. Engrossed in these dismal reflections I sighed audibly.

"Did you say something?" Judy asked.

"I was just thinking."

"Not really!" she quipped.

"I was thinking the old Cariboo has outlived its usefulness." As I spoke I struck a match to light my freshly filled pipe. Before I could lift the flame to the tobacco, a wild woodland drama was quickly unfolded before our eyes. It was over by the time the match burned down to my fingers.

A young doe came bounding up the wagon road with a wolf at her heels. I had heard many stories about wolves destroying deer in our district, but I never dreamed of becoming an eye witness to the slaughter.

The doe leapt along as easily and gracefully as if she were on a pleasure jaunt and not up a long slope with death at her heels. The wolf with jaw sagging, tongue lolling and making tremendous effort was clearly gaining ground. As the race neared the end of the road, the doe suddenly accelerated her speed. Three leaps, two leaps, and then one long one, which to our dismay landed her on the very brink of the loose mine waste funneling down into the shaft. Would a 120-foot drop to the rocks below be any worse than being torn to pieces by her savage pursuer?

Apparently the doe entertained neither of these grisly ideas. As

quickly as the four dainty hoofs touched the shifting mine waste they rose again, and she landed on the far side of the gaping hole. The instant she touched solid ground she gave a flick of her little white behind and sailed around the dump and out of sight.

The wolf, speed unchecked, failed to clear the shaft. Judy muffled a shriek as the beast furiously clawed the loose, fine waste, and then in a stony avalanche slid slowly backwards. As he hit the rotten cribbing, she covered her face with her hands. In a matter of seconds all was still again.

"Holy smoke!" I yelped, dropping the burning match that was singeing my fingers.

Moments later Judy breathed "Shh! Do you see what I see?"

There, coyly peeping around the side of the dump was a small, pointed nose and two very large ears that looked as if they were cut out of cardboard. We froze, scarcely breathing as the doe cautiously came into full view, turning her head this way and that as she sniffed the breeze. She skirted the shaft, and went leisurely down the road, around the bend and out of sight. We looked at each other.

"What do you know about that?" she laughed nervously.

As we climbed down from the ledge, we too feigned not to see the old shaft hole. Silently we turned our backs on it and followed the little lady down the road. We got into the car and drove out to the highway.

Turning to Judy, I said, "It looks as if the old Cariboo hasn't outlived its usefulness after all."

"You are so right!" she chuckled. "And it does go to show that animals have brains and do reason things out."

At the moment I could think of nothing to say. I've no skill in identifying individual critters, even among the domestic types. How could the pursued deer travelling at high speed, know that her enemy had perished for certainty and that it was safe for her to return? Might not the doe, which we had just seen, be quite another critter, quite unaware of what had happened a few minutes earlier? Let Judy score her point! I had better bone up on deers, their ways and markings and then chat with some of my naturalist friends before holding any fixed idea or entering into argument on the point.



So You're Having a Party

Plan in advance, checking off items needing attention and then you are on the way to an evening of good fun

by GLORIA LOGAN

WHETHER it's a child's birthday party or a get-together for the grown-ups, its success will depend to a large extent on the charm and ability of the hostess. A party should be just what the name implies . . . fun and jollity . . . not a hectic affair after which the hostess collapses into the nearest chair crying: "Never again."

Even spur-of-the-moment parties can be successful if some time and thought are put into them beforehand. When you decide to have a party sit down and make out a list of all the things you will need to do. Don't undertake too much or you'll wind up in a state of exhaustion with the house and the refreshments half ready.

The thoughtful hostess thinks of every little detail that will add to the pleasure and comfort of her guests. The details vary with the type of party given. If there are to be games, have all the equipment and materials ready and placed so that they are easily found. If the weather is cold and stormy, there is need to think of hangers for coats, a place to put wet overshoes—possibly even a separate room to lay a sleeping child, whose parents have no way to find a babysitter. A surprise of some sort gives zest to a party. This may be provided by decorations, by novel prizes, especially those that create laughter.

Plan your party at least a week in advance. If it's to be an informal affair, you needn't send written invitations, a telephone call will be all right. Invite guests at least four days before the party.

Next plan a menu and it should be as simple as possible. Stick to foods you've prepared before. The morning of the party is not the time to try out Aunt Sophy's recipe for Danish ham puffs. A buffet supper is simple to prepare, if you stick to a hot dish, salad, fresh rolls and coffee or tea. Serve fresh fruit and eliminate the need to prepare pastries.

Plan your schedule so that you will have at least an hour to get yourself prettied up and attend to last-minute details. You should be able to greet your guests without a harried, rushed look which betrays poor timing.

Perhaps you have planned an evening of music and some stimulating conversation but it's a good plan to start the festivities with a couple of games to break the ice. A good ice-breaker is the Who Am I? game. As each guest arrives pin on his or her back a piece of paper on which is written the name of some famous personage. This may be a comic strip character, a statesman, singer or any other well known person. Each guest then circulates among the others, asking questions as to his identity. The questions must be the kind that can be answered with a "Yes" or "No." By the time each guest has discovered his identity, the ice should be broken.

If the party is for small folks have plenty of prizes. These may be balloons, coloring books, plastic toys, etc. They are inexpensive but they gladden a child's heart. Children usually

have their own favorite games and you won't have to worry about how to entertain them. For a child's party set the table. Have plenty of wholesome food, such as sandwiches, milk, cookies and the inevitable ice cream. If it's a winter party make snowmen place cards. These are easily constructed from balls of absorbent cotton, dabs of paint for eyes, and other features and black cardboard hats. The child's name should be hung on a placard around the snowman's neck or some other conspicuous spot.

Other ideas for place cards are: turtles made from half-walnut shells. Stuff with gumdrop or marshmallow, insert toothpicks for legs, a raisin on a toothpick for the head and paint the child's name in red nail polish on the back of the turtle's shell. If it's a valentine party, make heart-shaped cookies.

Your guests will enjoy themselves better when they know you are having a good time, too. The way you can be sure of having a good time is to plan so there will be few, if any, details needing last-minute attention. *V.*

Fruit of the Wise Men

Continued from page 45

The germ-proof skin may burst, exposing the pulp to insects and bacteria. The finest flavor is developed only when bunches are cut green and permitted to ripen later. After cutting, each bunch of bananas is dipped in water to remove the various spray chemicals. It is then wrapped in white paper and finally covered with heavy brown paper.

As the "bunch" is harvested, the plant is cut down. Three men are usually required for this task. One a "cutter," who, using a knife on the end of a long pole, cuts the plant a few feet below the bunch. As the top bends, he steadies it with his pole so that the bunch may swing down easily and come to rest on the shoulder of another man called a "backer." Then the cutter with a long sword-like knife, separates the bunch from the stem and the backer carries it to the nearest road. Here it is loaded on a pack mule, in charge of the "mule man," who takes the bunches to the tramway or railroad.

BANANAS are most carefully loaded into specially constructed freight cars which convey them to a cargo ship waiting at the nearest port. At the wharfside, the brown and white paper wrappings are removed. Each bunch is carefully examined and the imperfects, rejected. Cargo ships, actually ordered some 14 months earlier about the time the banana roots were planted, are loaded by an ingenious and elaborate conveyor belt, somewhat similar to those used in country and terminal grain elevators. As the belt moves, a bunch of bananas is quickly and carefully placed in a canvas bucket or "pocket." The conveyor belt extends from standing freight cars up to the ship's loading deck, descending again to the various separate holds. Here the fruit is

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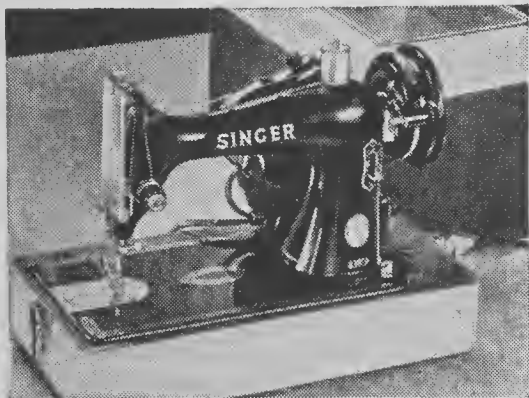
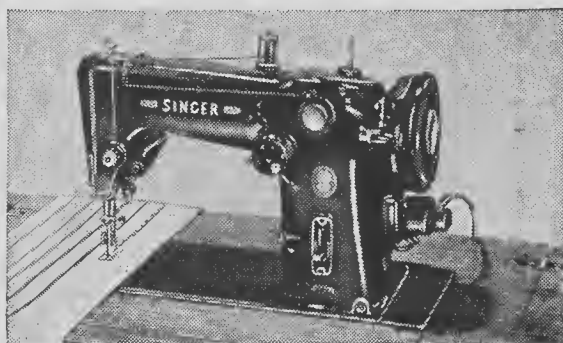
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stowed in such a manner that air may circulate freely.

Banana freighters have hulls, especially constructed to prevent damage to fruit, should rough seas or storms be encountered. Modern-day, large cargo fleets have ships capable of carrying from 50,000 to 80,000 bunches of bananas. They ply the seas to ports in many distant countries—at a speed close to that of many passenger boats. During the outward voyage, fresh, cooled air is kept in circulation by means of big fans operated by modern ventilating machines. At regular intervals men visit the ship's holds to check both temperature and air circulation. Temperature is maintained at 57 degrees F. Should cold weather develop during a voyage, warm air is circulated through the storage space.

You may ask where we, in Canada, get our bananas. That in a measure is determined by the region in which we live. Costa Rica and Panama supply over half the bananas we import. Canada's import of bananas from all countries in 1954 was 2,953,753 cwt., valued at \$23,014,487. Customs at a rate of 50 cents per 100 lbs. of fruit is charged on bananas imported from all countries except the Honduras Republic, in which case \$1.00 duty per cwt. is imposed.

Ships carrying bananas for consumption in western Canada dock at New Orleans, La., and Mobile, Ala. Bananas destined for eastern Canada dock at eastern United States ports. Inspectors, employed by the fruit company check every bunch and classify it as to carrying ability. These inspectors accept complete responsibility for checking quality of the fruit. Our government officials are not so directly concerned with inspection. Only if complaints are made by wholesalers, do they check banana shipments.

Less mature bananas of a "medium to thin" grade are selected for the journey north, since they are harder and withstand more handling. Any bunches likely to ripen soon are distributed to nearby markets. The remainder are loaded into special freight cars for the long overland hauls.

To see that the best possible care is taken of the fruit en route by fast freight trains, "messengers" attend the

banana-loaded cars. Travelling with the trains from seacoast or meeting them at various leading market centers, it is the responsibility of these men to take temperatures, see that ventilating, icing or heating are properly done to ensure the fruit reaching the end of the journey in top condition. From the freight cars bananas are taken by truck to warm, moist ripening rooms. Here wholesale dealers hang the bunches three or four days till they are ripe. Then the clusters of bananas are cut from the stem, boxed and delivered to retail stores.

When bananas are unripe the peel is green and the pulp almost all starch like an uncooked potato. When partially ripe, the peel is yellow with green tip and most of the starch has changed to easily digested fruit sugars. At this stage bananas, like a vegetable, may be cooked in many different ways. When the peel is all yellow, bananas are ripe and ready to eat as a fresh fruit. Many people prefer them like this. In another day or two at the fully ripe stage, brown spots appear on the golden yellow peel. The pulp becomes more mellow, the fruit is sugary sweet and flavor at its best.

WHEN buying bananas, it is wise to purchase by the hand or cluster. If not fully ripe, allow them to ripen at a comfortable room temperature of 70 degrees F. Do not store bananas in the refrigerator. This is only advisable to delay further ripening when they are already fully ripe. Bananas kept in the refrigerator at temperatures below 50 degrees F. causes the ripening process to be retarded and the delicate flavor impaired. When removed and exposed to average room temperature, the peel turns dark and is easily mistaken for that of a fully ripe banana.

Bananas are rich in energy-giving carbohydrates and a good source of vitamins A, B, C and G. They contain essential minerals such as calcium, magnesium, phosphorus, sulphur, iron and copper. The key to the banana's varied usefulness is to be found in its readily assimilated sugars which make it of great value in infant feeding, preventing certain deficiency diseases, and for those on special or convalescent diets. Altogether bananas are an excellent and satisfying "food-fruit." V



Canals are constructed to provide irrigation of banana plantation areas.

Sew and Save



1448



No. 1448—Expectant mother can be smartly dressed in well cut three-piece outfit consisting of loose-fitting blouse, jacket and trim skirt. Make jacket and skirt from favorite solid color, then sew several blouses from contrasting patterned material. Two-piece skirt has semi-circular section cut from upper part for slim fit. Sizes 11, 12, 13, 14, 15, 16, 18. Size 14 requires $4\frac{3}{8}$ yards for jacket and skirt and $1\frac{7}{8}$ yards for blouse (36-inch material). Price 50 cents.



1409

(1)

1444

(2)

No. 1444—Daughter's dress. Full skirted little girl's dream dress just like mother's. Trimmed with dainty lace or ribbon. Pretty V-shaped waistline. Pattern includes four variations of style. Sizes 1, 2, 3, 4, 5, 6. For three-year size—view 2 requires $1\frac{3}{4}$ yards 36-inch material; view 3 requires $1\frac{7}{8}$ yards. Price 50 cents.

No. 1409—Mother's dress. Unusual neckline and waistline make this dress attractive and youthful in style to match little daughter's party dress. Pattern includes high neckline style with tie for afternoon wear. Set in sleeves, full skirt—lower edge measures about 206 inches. Sizes 11, 12, 13, 14, 15, 16, 18. Size 14—view 1 requires $4\frac{3}{4}$ yards 36-inch material; view 4 requires $3\frac{3}{4}$ yards 54-inch material. Price 50 cents.

No. 1333—Boys' coat, hat and snow pants. Well tailored style with set-in sleeves, notched collar and pocket flaps. Button arrangement gives double-breasted look. Sizes 2, 4, 6, 8, 10, 12. Size 6 requires $2\frac{3}{4}$ yards 54-inch fabric for coat, hat and pants. Price 35 cents.

No. 1479—A favorite style with active young misses. Three-piece suit—jacket, skirt and blouse. With several blouses outfit is ideal for school and "best wear." Three-piece skirt has unpressed pleats, high waistband and shoulder straps. Sizes 7, 8, 10, 12, 14. Size 10 requires $4\frac{1}{2}$ yards 36-inch material for jacket and skirt and $1\frac{1}{2}$ yards 36-inch material for blouse. Price 35 cents.

No. 4418—Dressy coat for spring or fall. Two-piece back, slightly flared, with or without half belt. Snug Peter Pan collar, large pockets. Sizes 7, 8, 10, 12, 14. Size 10 requires $2\frac{1}{4}$ yards 54-inch material. Price 35 cents.

All patterns are printed with instructions in English, French and German.

State size and number for each pattern.

Note price, to be included with order.

Write name and address clearly.

Order Simplicity Patterns from The Country Guide Pattern Service, Winnipeg 2, Man., or direct from your local dealer.



1444

(3)

1409

(4)



1479



4418

1333

The Country Boy and Girl



WHAT a welcome touch of color the evergreen trees give to our winter world! When all the other trees stand bare and grey, the rich green of pine, spruce and balsam bring beauty and brightness to the drab still woods.

The evergreens belong to the coniferous (cone bearing) family of trees. Other members of the family are: cedar, juniper, yew, pine, spruce and hemlock.

Our sketch shows a black spruce which is one of the most common evergreen

trees in Canada. It prefers to grow near swamps and bogs in the southeast but in the north and west you may find it on stony slopes and hillsides. White spruce also grows in the same parts of Canada but usually the black spruce has a noticeable tuft or knob of branches at the top while the white spruce is gradually tapered at the top.

Examine the cones of both white and black spruce and you will find the cone of the white spruce is slightly longer. The cones on the black spruce often remain on the tree for years but the cones of the white spruce fall off before a new crop forms. Winter is a good season to study the coniferous trees in your district.

Ann Sankey

The Pink Pirate

by MARY GRANNAN

JOHNNY LEE reached for the fat china pig on the bookshelf. The pig held Johnny's savings, and he looked almost reproachful, as Johnny began to shake the coins from him. "It's alright, Piggy," Johnny laughed. "I'm going to spend my money on valentines. That's what I saved it for. Next week I'll start feeding you pennies again. I'm going to buy a valentine for Mum and Dad, one for my teacher, and some for my friends. We have a valentine box in school."

The china pig seemed satisfied with the explanation, and willingly gave up the money that he had been holding. Once emptied, Johnny put the china pig back on the shelf, and the coins in his pocket. He set off for the five-and-ten. It was while he was choosing a valentine for Molly Pickard that his eyes fell on the pink pirate. He was a very bold looking fellow. His legs were widespread, and his pink shirt was open at the neck. His pink breeches were tucked into long shining black boots. His large black turned-up hat had pink crossbones on the front. He was wearing a dirk in his belt. He looked complete master of the ship, on which he stood. A pirate's black flag hung from the mast.

Johnny moved closer to the valentine, examining it closely. The glass in the portholes was clouded over, but Johnny was sure that he could see the frightened face of a little girl in one of them. He asked the price of the valentine. It was 15 cents. That was more than Johnny had intended to pay, but he must have this Pink Pirate for himself. He felt sure there was trouble aboard that pirate ship, and he was going to find out what it was.

When he reached home, he sat down at his mother's desk to address his valentines. His mother noticed that he wasn't signing the Pink Pirate.

"I bought this one for myself, Mum," Johnny said. "I think there's more to this valentine than meets the eye. I have a feeling that the pink pirate has a prisoner aboard that ship. I'm going to investigate."

Mrs. Lee laughed merrily. "I hope the pirate doesn't seize you, too," she said. "He may not like you mixing in his affairs." She was still laughing as she left the living room and went back to the kitchen.

"Your mother is right," said a voice behind Johnny. "I don't like your mixing in my affairs."

Johnny swung around, and was face to face with the pink pirate. Johnny gasped in surprise, and when he found his own voice again, he said, "How did you get into my living room, Pink Pirate?"

The Pink Pirate laughed. "You are a silly boy," he said, "asking a silly question like that. I was just going to ask you how you got on my ship?"

Johnny looked around him. He was on the Pink Pirate's ship. But how did he get there? He had no recollection of leaving the desk in the living room, and now he was on the deck of a pirate ship, with a black flag flying high above him in the wind. The pirate smiled a crooked smile. "You thought you saw a little girl looking through the porthole, didn't you?"

Johnny nodded.

"You were right. You did see a little girl. She is the Princess Valentina from Valentine Land. I am holding her for ransom. When you discovered her whereabouts, of course I had to seize you, too."

He took Johnny by the arm and began to drag him across the deck. "Unhand me, Pirate," cried Johnny. "Let me go."

But the Pink Pirate was more than a match for Johnny, in strength. Johnny was tossed to the lower deck. He pulled himself to his feet, and as he did, he heard the sad soft cries of the Princess Valentina. He ran to the cabin where she was being held, and with a mighty push, he managed to open the door.

The little princess was well named. She looked like a beautiful valentine. Her dress was of the palest pink, and woven into the delicate fabric were tiny ruby hearts. Her pink slippers had tiny red heart buckles, and on her head she wore a coronet of jeweled roses. She knew that Johnny was her

friend. "Please take me from the Pink Pirate's ship," she sobbed.

"Don't cry, Valentina," Johnny whispered. "I'll get you off this ship somehow, I don't know yet how I'll do it, but I'll get you off the ship."

Just then a friendly pink face appeared at the porthole. "It's my pig," said Johnny. "It's my china pig. He's in the water. We'll break the glass in the porthole, climb to his back, and he'll swim us to shore."

Johnny was really surprised at the broadness of the china pig's back. There was ample room on it for himself and the princess. The pig cut through the water like a motor boat. When they reached the shore, they looked back. They could see the Pink Pirate brandishing his cutlass, in fury.

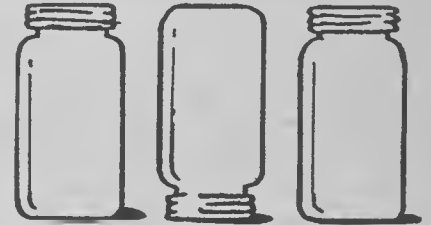
"Thank you for saving me, Johnny," said the valentine princess.

"Don't thank me," said Johnny gallantly. "Thank my china pig. I'll give him some more pennies next week, as a reward."

"I'll give you your dinner, if you'll wake up," said Johnny's mother, leaning over him. "A fine fellow you are, falling asleep at the desk."

Johnny rubbed his eyes and laughed. He looked at the Pink Pirate, who still stood boldly on the deck. "Mum," Johnny said, "that was the best 15 cents I ever spent. I rescued a princess, I foiled a pirate and I had a ride on the back of my china pig."

Jar Trick



HERE is a trick for you to do with empty jars, bottles or cups. Use three of them in a row with the middle bottle upside down, as shown in the illustration. Now pick up the bottles, two at a time and turn them over three times, finishing with all three bottles upside down.—A.T.

Sketch Pad Out-of-Doors

No. 48 in series—by CLARENCE TILLENIUS



ON a winter evening, when the poplar trees are silhouetted purple and brown against the sunset sky, the plump forms of ruffed grouse gathering their evening meal of buds completes a picture that always, for me, awakens a feeling of nostalgia.

In my mind, this picture — tree branches silhouetted against the winter sky—never fails to call up from memory the many winter evenings spent in the open woods listening to the clatter and whirr of wings far and near through the frozen stillness, as feeding grouse flew from tree to tree or, betrayed by a branch too frail to bear their weight, plummeted to the snow below.

The pattern of branches and tree trunks seen against a sunset sky always seems more striking than the same branches at mid-day. This perhaps is because there is nothing to distract the eye from their form. All local color and detail is lost against

the splendor of the sunset and the sunset itself seems to gain an added brilliance from being seen through this purple black tracery of branches. You must remember that even though these poplar trees by day are white or greyish green, they keep nothing of this local color against the setting sun. Then, everything seen against the sunset glow takes on a hue of purple because of the orange and yellow of the sky.

There is a strong temptation, though, when attempting to paint these glowing colors, to exaggerate the effect. It will be a useful corrective if you make many studies in black and white of these effects without attempting them in color. Black and white will fix in your mind the simple contrasts of the scene so that when you tackle it in color you will not try to render detail or color in the trees that is not there. Simplicity of outline adds strength to a picture.

Keewateena Trail

Continued from page 14

suggested to lumbermen their tales about their giant hero Paul Bunyan, who used the Hudson Bay for his bathtub and whose peavy, once trailing innocently behind him, traced the Red River of the North.

Nearer and nearer they strode toward Lummis, till it seemed their next huge step would blot him out. Then, as suddenly as it had appeared to sight, the illusion of them shrank and dropped to the snow; and four mere flesh-and-blood men were filing past him on the trail.

He caught a deep breath.

"Hello partners!"

At the hail, the four men whirled toward him, unslinging their rifles as they whirled.

"Smokes, a posse, and skittish!" thought Lummis. "I wonder who they're hunting."

He rose up from the sleeping-bag and stepped out from behind the screen of balsam boughs.

"Heavens above!" cried one of the men. "It's him!"

For half a minute Lummis was too surprised to speak or move. He simply stood in his tracks, staring at the posse.

One of them was a Cree meti, a handsome wood-loper, panther-bodied, with a trace of the old fur-voyageur sauciness in his sash belt and quilled garments. Two of them were middle-aged white men, sandy-whiskered Scots, their rocky faces frozen rockier still. The fourth, the man who had cried, "It's him!" was a blue-eyed likable youngster of hardly eighteen years, but big and powerful as Lummis himself.

Lummis stepped forward, hand outstretched, a jovial grin on his face.

"Sorry," he chuckled, "but it isn't him! It's somebody else. My name's Lummis—Holt Lummis. Camped here last night. Saw you men hot-footing it up the trail and thought I'd racquet along with you till our paths fork."

Instead of their hands outstretching to him in apology for a mistake, their rifle-muzzles followed him silently as he stepped up close to them.

"Stand there—don't budge!" one of the Scots ordered, "Tommy, tie him up."

"Hold on a minute," Lummis bade them, sobered by the muzzles and the terse order. "Don't you see you've got the wrong man? I don't know who you're after, except I'm not him."

He said it so earnestly, there was so convincing a ring in the simple truth, that his words nonplused the Scots. They turned their heads to the young fellow.

"Is this the man, Tommy? Ye saw him; we didnae."

"It's him. Look at that lynx-fur suit!"

"Yes, but there maught be anither's like't in the country, Tommy."

"But his face, Roderick. I saw his face pretty plain at Lac Brulé—"

"Look here," Lummis interrupted. "I haven't been to Lac Brulé at all. I came over on the Cananaugh Trail that joins on to the Keewateena ten miles this side of Brulé. You've got the wrong man, I tell you."

One of the Scots stepped up and searched him; the other searched his pack, his sleeping bag, and found nothing. Their brows wrinkled in puzzlement.

"Whac are ye?" Roderick demanded.

"Lummis, I said. I'm from British Columbia. Came up here last fall to look around in the oil-fields a bit. I'm headed right now to Fort Norman."

"Roderick," said the other Scot. "He steppit, ye mind, out o' the bush friendly-like and gie'd himself away to us. That was hardly the trick o' a guilty mon. Tommy, are ye dead certain, lad?"

Tommy took a step nearer and searched Lummis' countenance.

"It's him."

"You're bat-eyed," Lummis assured the young man. "You never saw me—I never saw you—before."

"I'll swear to it!"

There was a deadlock silence for a minute.

"Tommy maught be mistaken," Roderick said finally. "He didnae see the mon close at Lac Brulé. But we've three ither folk there whae did see the mon conscience plain. They'll settle this doubt. Come, mon, your duffle. Back we gae; if ye are nae the birdie, then he must ha' escaped us clean."

LUMMIS did not know whether to laugh or be angry. Inasmuch as the three witnesses at Lac Brulé would free him at their first glance, it appealed to him as rather funny to be taken for a desperate, posse-hunted criminal. But he would lose two whole days, and he was in a great hurry to get to Fort Norman.

With the rifles of the four men still pointed in his direction, he rolled up his sleeping-bag, slung his light pack, handed his heavy rifle to the Cree meti, and buckled on his racquets.

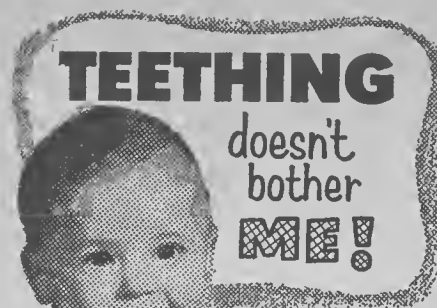
Lac Brulé settlement, a tiny dot of human life in the heart of the Strong Woods, consisted of two dozen split-log cabins, a fur-trading store, a church and a Presbyterian mission.

In the purpling twilight of late afternoon, Lummis and his four captors broke out of the woods, crossed the frozen lake to the settlement and halted in front of the mission door.

In that all-day trek, Lummis had learned the details of the crime. In the Ptarmigan Hills south of the settlement, Corporal Hogarth of the Royal Canadian Mounted Police had been shot from ambush as he was taking \$2,000 of treaty money to an Indian encampment. The murderer had reached Lac Brulé before word of the murder did. Four people had seen him as he passed through. The blizzard had whipped shut his tracks when word did come; but the posse had gone after him nevertheless, hoping to stumble across him by sheer blind luck.

Remembering the faint racquet-signs he had seen when he first awoke that morning, the conviction grew upon Lummis that they were the tracks of the murderer. All the circumstances fitted that conviction, and moreover it seemed fairly certain that no sane, law-abiding person would be travelling on that trail in a blizzard, at night.

But wisely he said nothing about his conviction then. The Scots would



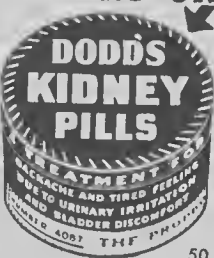
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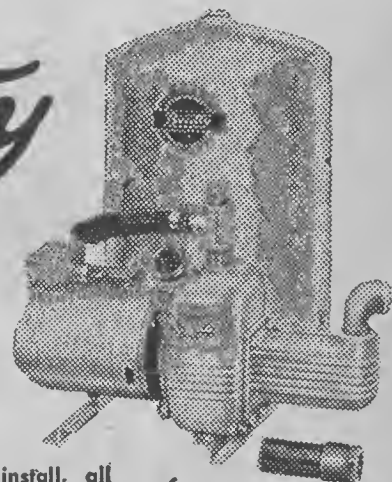


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probably think he was framing an escape, lying, tricking them. When he had been released by the three witnesses, his word would mean something; and he probably would lead the posse in pursuit of the murderer.

YOUNG Tommy Ferguson had pushed on ahead to the settlement and told the news. A crowd of 60-odd folk awaited at the mission door: meti trappers, their dark-eyed wives, forest Crees, Chipewyans, Cariboo - eaters from Wozakwanti Lakes, several white trappers, a frocked minister, the fur-trader and his helper, and a little knot of white women.

Smiling confidently, Lummis stepped into the middle of the circle and turned around once, slowly, so that all of them could see him. Roderick, standing beside him, raised a hand for silence.

"Paul Genron, ye saw the mon whae passit through here wi' the blood o' puir Corporal Hogarth on his hands. Step forward, lad, and look't this prisoner and speak wi' the solemn fear o' Gawd in your heart."

A young meti stepped up till he could have touched Lummis with his outstretched hand. He stared fixedly a moment. His lips parted.

"It's him!"

As the words broke upon his ears, a sudden paralyzing chill struck Lummis, shattered his perfect confidence, astounded him utterly. A premonition seized him. He fought against a nervous rigor, mastered it, remained calm before them all, sustained solely by his conscience. Some horrible mistake—it would be cleared up, perhaps by the other two witnesses . . .

"Peace-River Flannigan!" Roderick spoke again, silencing the ominous mutter in the assembled men and women. "Come forward, mon."

A middle-aged white trapper stepped out, faced Lummis, nodded, his lips set tight and his face dark with anger.

"It's him!"

"Lord!" Lummis groaned inwardly, as the second crashing blow fell. "Lord—some devilish trap—I'm caught in it!"

The mutter swelled and broke out into cries of vengeful anger. But Roderick, stern-faced, relentless, raised his hand a third time, to complete the damning evidence.

"Ruth Ferguson, come forward, lassie."

A GIRL stepped out from the little knot of womenfolk; a girl of 20, sister to young Tommy Ferguson. The crisp cold had touched her cheeks with a flush of rose. A wisp of silken light-brown hair, escaping from her snug white-fox capots, played against her temple.

Coquette though a girl of her loveliness might have been, Ruth Ferguson was candid and sweet-souled and unspoiled by the attentions of all the men who had tried to win her affection. Long before he had heard of Lac Brulé, Lummis had heard of her; of her suitors among the oil speculators, the blue-blood adventurers; the mining kings of the Inside; of her teaching and nursing among the meti and Indian children at the mission.

As she stepped up close to Lummis, a big tawny and black malemute trot-



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ted up to her and nuzzled her glove. She patted his head unthinkingly, her eyes looking into Lummis'.

He awaited her verdict. The testimony of all these others might be a conspiracy, or some mistake arising from their passion; but her word would be neither. He looked unflinchingly into her blue eyes, trying desperately to read her thoughts.

She hesitated, wetted her lips.

"Speak, lassie," Roderick urged.

She averted her head from Lummis.

"It is—it is—he!"

A thousand denials leaped into his throat, a thousand assertions that he was clean of crime, guiltless of bloodshed, a victim of some ironic likeness to the murderer! But his tongue felt wooden as a chip, and his brain was paralyzed.

All his iron will, his strength of soul, went into the struggle against the panic that seized him. Again he mastered himself, showed no weakness, though the men of the crowd were shouting in Cree and French and English for his life then and there, at the nearest fire-deadened spruce.

Ruth Ferguson, with a glance of commiseration at him, stepped back to the knot of women, but the malemute came up to Lummis, smelled his trouser leg, wagged his wolfish brush, and leaped up, planting his two big pads on Holt Lummis' breast. Lummis patted him, smiling grimly.

"Why can't you speak to them, friend?" he muttered. "You're testifying that I am all right. Your nose can't be fooled, though even her eyes can be."

Roderick pushed the dog roughly away; his hand fell heavily on Lummis' shoulder.

"Come. As I took ye prisoner, I will try to save ye for the law."

The two Scots led him toward the door of the mission. Reluctantly the crowd split to let them through. With the stocks of their rifles they beat back half a dozen metis who grabbed for Lummis and tried to tear him away. Young Ferguson sprang to help the Scots, barring the doorway until they had whisked the prisoner through to safety and locked the door behind him.

Lummis was led down a stairs to a room underground, a cellar-room that could be guarded against attack. The two Scots bound him hand and foot, tied him to the bunk, lit extra candles, and set young Ferguson and the Cree meti to guard him, rifles across their knees.

"Till Constable Allen comes up frae Ptarmigan Hills Post and gets ye," Roderick explained. "Twill be morning or better before he can be here."

WITH his bound hands on his lap, his head bowed, Lummis sat on the bunk getting a mastery of himself again. Clearly now he saw the trap which had caught him: the lynx-fur suit, his height, and powerful build, his face unshaven and distinctive features thereby hidden—all superficial, accidental similarities to the murderer, but similarities strong enough in combination to bring him to the gallows.

To the gallows, God above! A noose dancing in front of his unseeing eyes nearly swept him into a quivering panic.

Twice during that first hour, while the night settled down outside the mission, he tried to reason with young Ferguson and the meti. He told them of the murderer's racquet tracks which he had seen, of their mistake in identifying him, of the murderer escaping while they sat guarding an innocent man.

But the two growled at him and tersely ordered him to shut up.

Shortly after dark young Ferguson went out of the room a few minutes for supper. When he returned and sent out the meti, he divulged some news.

Constable Hogarth, he explained, had been the first white resident among the Lac Brulé Indians. For 20 years he had been their friend, their doctor through four red plagues, their counsellor at treaty talks, their "almost brother" by tribal adoptions. He was therefore friend and kinsman—to be doubly avenged in their personal bloody hatchet-and-knife way.

A party of nearly 40 Crees, metis and Chipewyans, wearing death-head masks, had started down toward Ptarmigan Hills. When Constable Allen came along the trail the next day with his prisoner, they were going to ambush him in a certain ice canyon, take Lummis away, and wreak their savage vengeance after their own fashion.

"And none of us whites," young Ferguson added coldly, "feel exactly like interfering."

The news spurred Lummis' to thoughts of escape. So far a hope had lingered that in the calm strict justice of a court he could establish his identity, his character, his innocence in spite of the four witnesses. But that hope was shattered; he would never see a court; he had to act.

If he were not guarded by two alert, wide-eyed men, he thought he might possibly free himself of his bonds, wriggle through the tiny ground-level window, bore up through the drift and be free—then steal a pair of racquets, a blanket, rifle and food, and outrun pursuit. But the guards—young Ferguson and the meti! They were his death-watch; there could be no escape.

"They've sure got me—got me dead to rights!" he admitted finally to himself, as if pronouncing his own doom.

For the first time in all his life a truth came starkly home to him; that sometimes even the strongest man, the man most confident in his ability to take care of himself, is stricken and humbled by circumstances against whose clutch it is useless to struggle. The truth was a leaven in his inmost soul; it worked a profound change in him. Though he never had been over-seeming in his strength or proud of his coups nor haughty because of his gift of brains, yet—as he saw now—he had been too confident of his own powers, too self-sufficient, too much a lone-handed player against life.

IT was an hour of midnight when the stair door opened and Ruth Ferguson came down the dozen creaky steps, bearing a pot of coffee and three cups on a wooden tray. Her brother, the meti, yawning after their long cold trip that day, but grimly alert, poured themselves steaming cups and drank it black.

She came across to Lummis with the third cup half full.



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"I'd give you more," she said softly, "but it would keep you from sleeping."

She made as if to hold the cup for him while he drank, but drew back, and put it into his hands instead.

"Loathing!" he thought bitterly, remembering her verdict. "She thinks I killed Corporal Hogarth—for \$2,000!"

An hour later Holt Lummis woke up — woke up without knowing when or how he had fallen asleep, with a ringing in his ears and a parched throat and aching eyeballs.

He rose to a sitting posture on the edge of the bunk. Only one of the four candles still burned. By its spluttering light he saw young Ferguson propped against the wall opposite him, feet on his chair-rungs, his head bent down upon his knees, snoring. The meti lay in a grotesque huddle near the stairway, as if sleep had overcome him as he tried to get above to summon help.

Mystified, unable to think clearly because of a fog still in his brain, Lummis started and tried to rise, forgetting he was tied to the bunk. The move dislodged an object that had lain in his lap; it dropped to the floor. With an effort he picked it up, looked at it with unbelieving eyes.

A knife with its blade open, a piece of paper wrapped around its handle.

The candlelight was so dim that he read the printed message slowly, letter by letter.

"Go to the giant spruce across north-west arm of Brulé. Everything you need is there."

After a reeling moment his brain began to work again. He realized that he had a confederate, someone who had brought him the knife to free himself and drugged his guards. He could feel the potion in his own blood from the mere half-cup he had drunk.

His mind leaped to the coffee, and beyond that to Ruth Ferguson.

But instantly he saw his confederate was not she. Her own brother had been drugged. He remembered her look of loathing and her verdict: "It is he."

Who, then, had befriended him in his black hour of need? In all that gathering he had seen no familiar face that afternoon, let alone a friend who would fly in the teeth of all the hatred against him.

WAS it some trick — the thought flashed across his brain — some scheme of the vengeful metis to lure him outside into their hands? But no, this must be a friend's act, a comrade's effort to release him.

Wasting no precious seconds over the puzzle of his unknown benefactor, Lummis set to work to escape. With the knife between his teeth he sawed the babiche thongs binding his wrists, stooped and slashed his ankle-thongs, cut the rope that bound him to the bunk, and was free. He walked over to young Ferguson, saw how dead asleep he was, and quickly stripping him of his clothing, donned young Ferguson's garments and put his own lynx-fur suit on the sleeping youngster. In three minutes he was ready to leave.

The tiny pane came out easily. Wiggling through the opening, Lummis pushed his way up through the fluffy drift till he burst into freedom.



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"Giant spruce across northwest arm of Brulé," he remembered half-aloud, and started across the quadrangle to the lake edge.

His wisdom in shuffling off the incriminating lynx-fur suit was starkly proved. Twice before he got clear of the cluster of cabins he met fur-muffled figures who greeted him with "Tommy, lad, 'tis sparklin' cold!" thinking he was young Ferguson out to stretch his legs a moment during the night-long vigil.

Halfway across the arm of Lac Brulé he ran into fresh racquet-tracks, leading to the giant spruce and back again to the settlement. At the rendezvous itself he found a pair of "speed" snowshoes, narrow almost as skis, the kind of racquets used by Cree wood-runners over hard-packed February snow. He found a light, high-powered rifle, a simple cooking outfit, goggles to guard against snowblindness, a pair of great white fluffy H.B. blankets, and food for a week on the trail.

With a husky blessing upon his unknown comrade, Lummis buckled on the racquets, slung his pack, caught up his rifle; and with a last look at the coldly glittering windows of the settlement, he turned and plunged into the forest.

Even in those tense moments of his escaping, he had swiftly thought out his plans. With a couple hours' start he could doubtless outrun pursuit till the next blizzard swooped and blotted out his tracks. For the time being then, he would be safe. But sooner or later he would have to hit some human trail for the Outside; and moccasin telegraph would have flashed the lookout warning from Churchill to the Laird, from Hersbell Island to McMurray's Landing.

He swore that he would never be hounded thus; and his quick brain saw the only alternative. To save himself, he would have to take the bull by the horns; he himself would have to track down and capture the murderer of Corporal Hogarth. The faint beaver-tail racquet tracks leading northwest up the trail . . . Could he overcome that long lead, catch his man? It was not mere justice—but his own life that hung upon that question.

CIRCLING to hit the Keewateena Trail north of the settlement, Lummis swung into a steady swift lope. The still cold had tightened down, down nearly to 70° below zero. He had to breathe through the fur of his gloves to keep from burning his lungs.



"Are you sure, Alice, you don't have something on the stove? I can smell it burning."

Around him in the spruce forest branches snapped under the strain of frost with reports as sharp and loud as a rifle-crack.

The night was a miracle of beauty, unreal, other-worldly, a fairy scene under a frosted, colored glass. The sky overhead was dark blue velvet sprinkled with dust of gold, canopying a frozen world of white and evergreens. In flashy longitudinal bands, in great crimson searchlights, in rolling waves, in shafts and fingers and unfurling festoons of a thousand most radiant colors, the Borealis shot down over the Northland from the crown of the world.

Lonesome for a human comrade in all that savage loneliness, awed by its vastness and its cosmic beauty, Lummis pushed up the trail at a relentless pace, knowing full well that in an hour or two or three, the hue and cry would be at his heels again. In spite of no sleep in 24 hours and a long trek besides, he covered the miles as no Cree runner, fresh and vigorous, could have covered them.

When morning broke and the coppery sun came up, alone this time, he found himself back at the place where the posse had met him. Stopping to eat a bite of warm food and to sleep half an hour with his arm bent under him so that the pain would wake him up, he shook himself together and pushed on again.

By mid-morning the faint mottle of shadows on the path had grown plainer and become a sure trail he could not miss. At noon he came upon the sheltered little clump where the murderer had camped the night before.

Though his lungs burned and his legs ached intolerably with *mal de racquette*, the painful snowshoe fatigue, he gave himself but a moment's rest. The thought of his quarry only a few miles ahead now spurred him on. After a mug-up and a wink of sleep, he took up the trail again.

WOLVES—three dozen great-padded animals flung out fan-shape behind the man Lummis trailed, stalking him, clinging to him, closing in as the purple shadows of afternoon fell aslant the drifts.

All that morning Lummis had had a growing fear, an instinctive presentiment of them. The caribou had yarded in the birch-swamps south of the Ptarmigan Hills, that winter; the black-eared rabbit had vanished—where, only the Manitou of their Strong Woods knew. Ptarmigan and grouse had perished under a thick January crust of snow. The packs were hungry, hungry enough to attack even man, their dread enemy.

He unslung his rifle and looked to the cartridges in its magazine. The trail rapidly grew fresher to the point where snow still tumbled into the racquet-tracks. The man ahead was aware of his danger, was being compelled to stop every few hundred yards and make a stand against those living hungers. He had become panicky, nerveless, for he was shooting recklessly. As many as a dozen cartridges lay in the snow at every stand, but Lummis could not see where one wolf had fallen.

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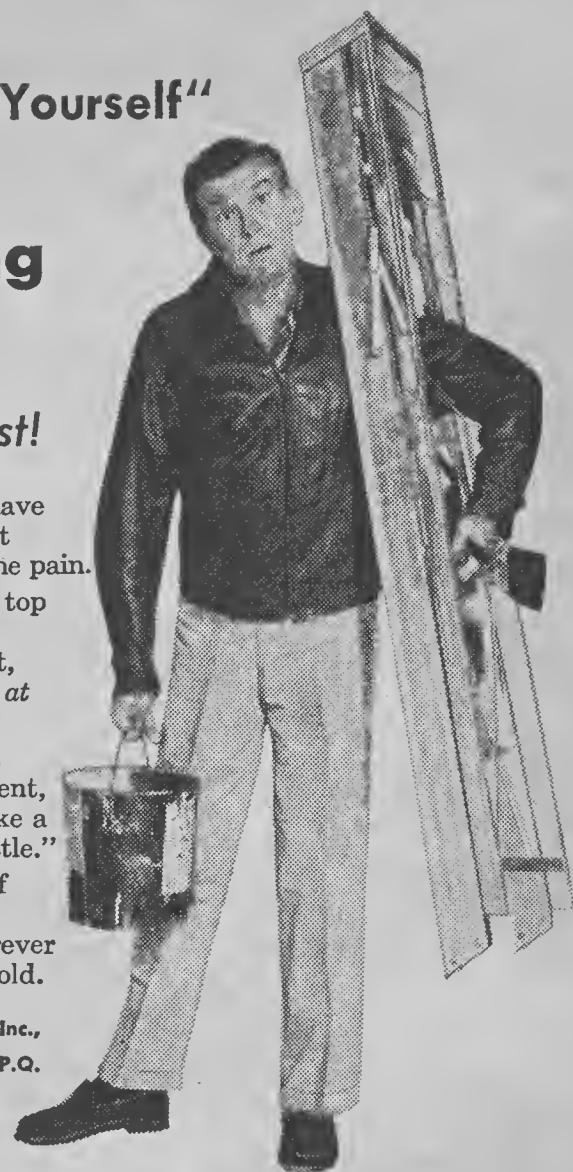
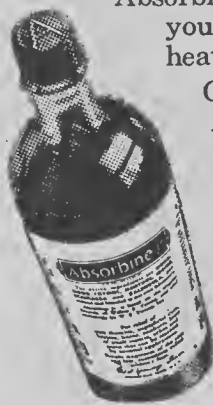
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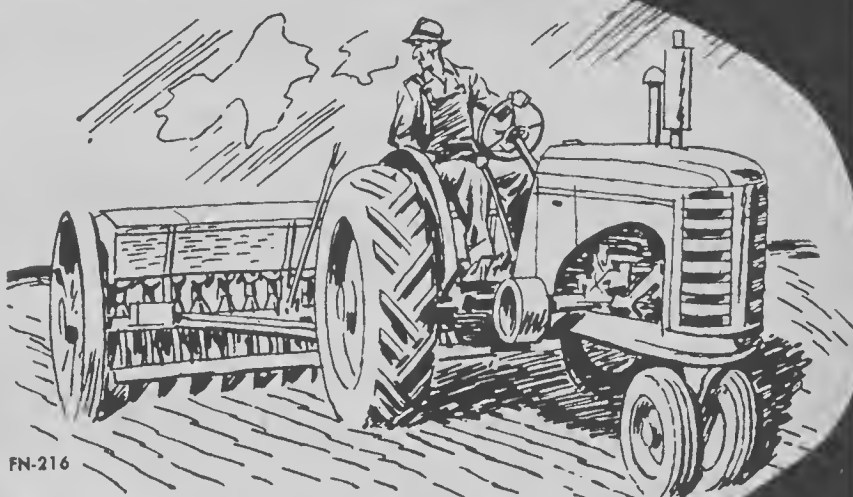
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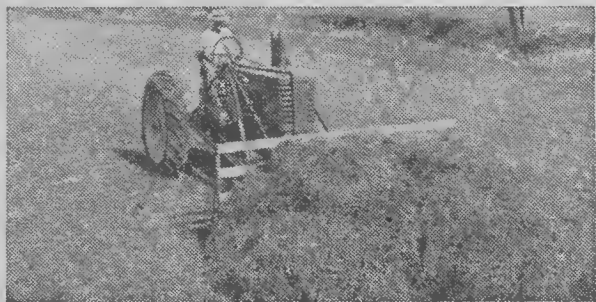


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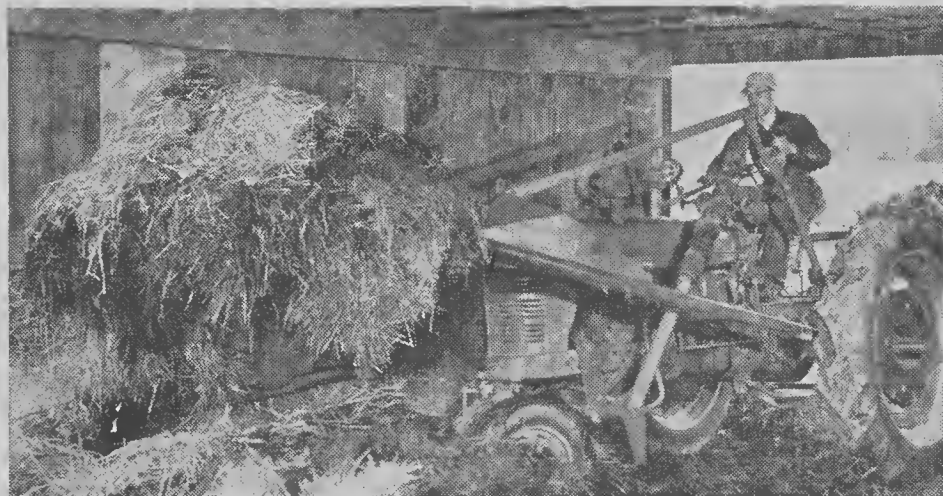
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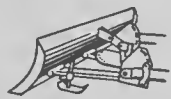


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dared not stop, because behind him was a pursuit he dreaded as much as the hounding of the red-mawed pack.

Risking a seared lung in that 70°-below weather, Lummis put all his strength into the spurt—to get there before the shadows deepened and the wolves closed in. It was his own race with death.

He burst upon the final scene unexpectedly. Six hundred yards ahead he saw an open space, perhaps three acres, a summertime lake. In its center reared up a dead jackpine, its stubs of branches reaching like a providential ladder down to the snow itself.

The man's snowshoes stuck in the drift at the bottom of the tree. He had climbed 30 feet and fastened himself by his belt so that when his limbs numbed and froze he would even then not fall. The wolves—38, Lumis counted—were sitting silently on the snow beneath, looking up, waiting. The man evidently had shot all his cartridges and flung away his rifle.

Crouching and keeping behind a clump of balsam, Lummis cautiously drew near. He had his eyes upon a leaning spruce at the edge of the clearing. From there he could reach the wolves at the jackpine. It was dangerous to try to make it, but that was his best chance to rescue the man.

He was within 40 yards of his goal before the wolf leader caught his scent. As they streaked toward him, Lummis jumped upright and darted for the tree. He made it by a scant ten yards, kicked off his racquets as he sprang, caught the first limb and drew himself beyond their snarling leaps.

Snarling back at them from a secure fork, he pointed the rifle at the leader and deliberately took aim . . .

Some 20 minutes later he stood under the dead spruce in the middle of the clearing. The man above him was too nearly frozen to unclasp his belt and descend, so that Lummis was climbing up to help him.

At the foot of the tree lay a dozen great Barren Ground wolves, and at the other tree which Lummis had climbed lay a dozen more. The little lake was dotted with their forms in every grotesque attitude as they had fallen smitten by an unerring aim. The barrel of his rifle was still hot through his glove.

He pulled himself up beside the man and clapped a hand on his shoulder.

"Come alive, you. We'll eat and thaw out and hit the Keewateena Trail for Lac Brulé, you and I!"

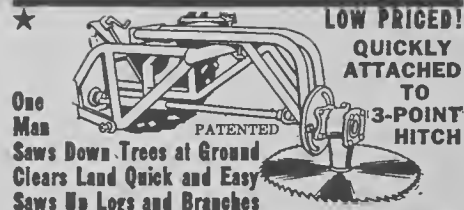
IN the chapel room of the mission—schoolroom and community meeting place too—he told his story to Constable Allen, the two Scots, the metis, and as much of the crowd as could squeeze in to listen.

He had eaten and shaved, and snatched an hour's sleep after his return from the exhausting trip in the teeth of a new-sprung blizzard. The man he had brought back with him, in whose pack he had found the \$2,300 treaty money, sat huddled on a bench under the guardianship of young Ferguson and Paul Gendron. Barsloff, he had given his name—an Alaska Russian, a derelict of the old *promyshleniki* blood of the Bering Sea and the Yukon forts.

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"I don't hold it against any one of you for identifying me as Barsloff here," Lummis concluded his terse account. "I'm pretty well acquainted with myself, and I nearly fell out of that tree when I first saw his face."

"There's but one ither addle," Roderick spoke up. "Whae knew ye for an innocent mon an' helpit ye escape?"

Lummis looked around the quieted room, trying to read the guilty countenance of his savior.

Near the prisoner Barsloff, beneath the south window where a shaft of golden light came through, Ruth Ferguson stood with the big malemute beside her. The dog was growling deep in his throat, baring his white fangs; and Lummis saw that Barsloff was the object of his hostility.

As his eyes met Ruth's, she made him a slight gesture—the tip of her finger to her lips. A part of the truth burst upon him.

"That," he answered the Scot's question, "must remain a secret—between my benefactor and myself."

A FEW moments later she was leading Lummis back to the privacy of the mission kitchen, since all the rest of the house was thronged. Once the door closed upon them, he put his hand gently on her arm.

"Well! It's your feminine right to change your mind, but not that fast—swearing one moment that I'm a murderer and saving my life the next. Won't you explain?"

"Barsloff kicked Tawney — kicked him without cause, brutally; you, even in all your trouble, patted him when he jumped up—"

"But I might have changed my nature or something," he objected.

"Tawney remembers. I have seen this a hundred times; the first time, he tries to make friends. If he is kicked—but you saw him wanting to leap at Barsloff in the chapel a minute ago!"

Lummis started, catching his breath as he saw that his life had hung upon so small a thing as a dog coming up to be patted, a thing even more insignificant than the mottle of shadows on the Keewateena Trail.

A malemute's friendliness, memory; a woman's charity, courage to renounce her verdict and help him escape—to that he owed his life.

"I had to make amends for my terrible mistake," she went on, breathing quickly. "No one, not even my brother, would listen to me. I had to help you escape, even by treachery to my brother. And after he told me of the tracks you said you saw, I prayed you would go after the man yourself and bring him back instead of merely escape—"

The door opened, and Roderick stumped in and pointed to a dog-team, sled and driver just without.

The burden of his message was that since Lummis was in a great hurry to get to Fort Norman and had already been delayed four days. Lac Brulé settlement was offering a Cree guide to show him a short cut through a hill and muskeg country.

Lummis looked at Ruth a moment before he answered. At the Scot's words he thought she started slightly.

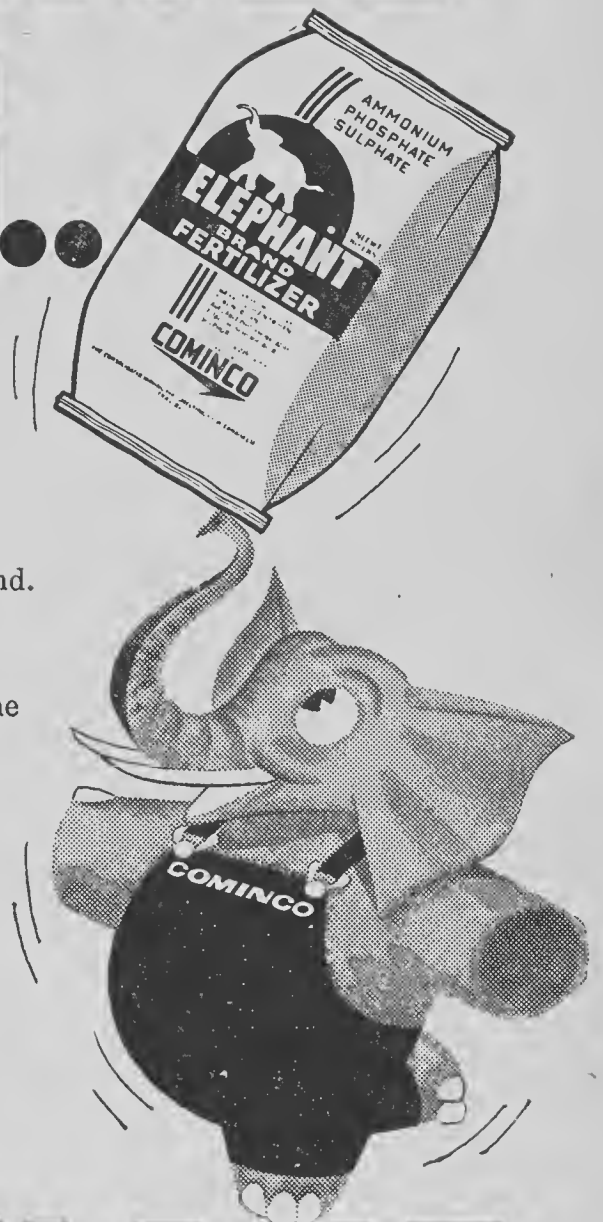
"Why," he observed, "that's kind of you, Roderick. But you're badly mistaken—I'm in no hurry to leave—no hurry whatsoever!"

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Prefabricated Ply-wood Loafing Barn

Continued from page 12

over and above the normal demands of the structure. Made of light, strong wood, such as spruce, they have shown only a slight deflection when tested under weights up to 135 pounds to the square foot. To most Canadian farmers, who must consider the demands of heavy winter snowfall, this means that the truss beams could safely carry five feet of snow over the entire roof.

The poles, which have a diameter of six inches at the top and represent the foundation of the building, are sunk in the ground four to five feet. That way they remain rigid and the structure doesn't need any cross-bracing. Splash boards of heavy planking are nailed along the poles at the bottom, to a height of four feet, to take the build-up of manure. Both poles and boards are pressure-treated in a chemical bath, to make them resistant to insects and rot.

The loafing barn walls consist of reinforced plywood panels from 12 to 16 feet long, with a honeycomb, bridge-like construction. These are assembled in sections at the factory, from pre-cut lumber. No feed racks for this type of structure have been made to date, but they are a distinct possibility for the farmer who buys the package barn of the future. For roof sections, there's a choice of treated plywood, plywood covered with a roofing material, as on the Thompson unit, or aluminum panels.

COST of the building will vary a good deal with the type, and the material chosen, but an open-housing

unit on the Thompson pattern comes to less than one dollar per square foot. On the recommended basis of 50 sq. ft. per cow, this unit would house some 40 head, at an over-all cost of about \$50 per cow. Even with all the extras thrown in, it would be safe to count on housing your stock in a prefabricated unit for less than \$100 an animal, which is well below the minimum loose-housing structure costs.

"I figure it cost me about one-third the price of a regular barn," Sid Thompson said. "There's no haymow needed, and no cement floor. Maybe I'll use a bit more bedding in this loose-housing type, but my cows will be cleaner, and there won't be nearly as much work."

Perched on the height of land between Sylvan Lake and the Blindman River valley, the 400-acre Thompson farm has about 150 acres in hay and pasture, and most of the remainder in barley. A staunch believer in mixed farming, Sid has chickens, hogs, dairy and beef cattle. The loafing barn will house 20 head of feeder steers, and about 15 dairy cows. The latter will leave the barn and enter the milking parlor by way of a covered ramp, now being built to connect the two structures.

Just about every type of modern farm building lends itself to prefabrication—loafing barns, hog houses, poultry houses, granaries, machine sheds, and dwellings, to name but a few. Lumber can be pre-cut in factories for cattle stocks, self-feeders, breeding racks, feed gates, and a host of other uses. From here, it looks like another time and money saver, which will increase production efficiency for those who make their living down on the farm.

Grain and Grass On Light Blow-Out Soil

As the herd gradually increases a successful change-over from grain to grass and alfalfa is taking place

DURING the 1930's, most of the farms on the sandy flats northeast of Kerrobert, Saskatchewan, were abandoned. But today, Omar Diederichs, whose farm is bordered on three sides by the Mariposa community pasture that was made from the abandoned land, is still there. He can point to blowouts on the sandy fields that are grown over with a rich, green cover of alfalfa. He can show you a field of waving brome and crested wheatgrass bordered by fence-rows of buck brush, a few weeds and little else. In fact, he is proving that his farm will yield hay and pasture in abundance.

He admits that grain would have paid him better during the years of abundant rainfall, but "conservation farming is a long-term program," he says. He is confident that it will pay off over the years.

Most of his five quarters are still down to a grain-fallow rotation, so careful farming is required to prevent erosion. He doesn't have a disk implement on the place, calling a good trash cover the salvation of his land. His rod weeder and heavy duty cultivator require more power, but they leave the trash on top. That's what

he's after. Even then, if the fallow gets dry and bare during an adverse summer, he seeds rye to keep the soil covered and prevent drifting. Using these methods, he seldom gets less than 20 bushels of barley to the acre and recalls oats going as high as 80 bushels.

But it's grass that interests him most and threatens to be the hobby



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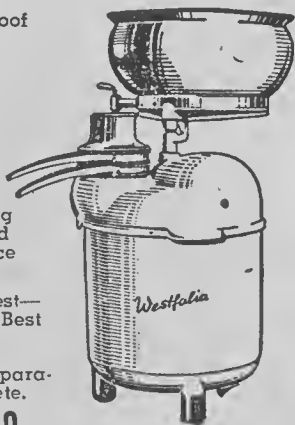
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that will take over the farm. Until his son Donald has finished school, he isn't planning to increase the size of his small herd. In the meantime, he is taking grass seed from his hay fields.

HIS pride is 24 acres of alfalfa, called by one seed inspector, the best such field he had seen. Mr. Diederichs showed the lush green field to The Country Guide representative and it seemed even greener in the bottom of old blow-outs. Seeded in 1949, on rye stubble, in 12-inch rows, at about four pounds to the acre, it has been yielding 50 to 200 pounds of seed to the acre despite bad luck from hail and frost.

This spring, to get rid of some red-root pigweed that was beginning to infest the field, he cultivated it about three inches deep, with an old cultivator that wasn't cutting too well. Three trips of the machine in three different directions, held back the

alfalfa, but more important, tore out the weeds. In early July, the legume had come back, was coming into bloom, and promised another good crop.

Mr. Diederichs drove us to another field—an even heavier stand of brome and alfalfa, on ten acres. He only lacked a baler to put it up.

Now he is busy seeding sloughs to a brome grass mixture, and adds that the grass "grows like crazy." Once his herd is expanded, he will cut around these sloughs for hay, but meanwhile the sod will provide a footing for tractors working near them.

Once the herd is built to the 60 or more head that Mr. Diederichs figures he can easily handle, he will have better use for the grass he grows so well. Meanwhile, it is giving him some grass seed, protecting and building the land, and not least of all, giving him an important new interest on his grain farm. V

Electronic Auction Board Sells Cattle Faster

Dutch auction system installed at Toronto stockyards starts from seller's price and goes down to best offer

by MARGARET K. ZIEMAN

A NEW mechanical auctioneer, imported from Holland—said to be the first of its kind on this continent—is selling calves twice as fast as the fastest-talking human salesman, at the Ontario Stockyards in Toronto. Twenty seconds after a calf enters the ring, a sale may be rung up.

The electronic auctioneer is a giant board, eight feet high and three feet wide. All buyers sit in front of it and wait for the clock in the center of the board to indicate the price asked for the calf in the ring. This figure is the highest price the seller thinks he can get. If no one accepts it, he continues to knock down the price, by flashing his next acceptable price on the board. When the price is right for any one of the buyers, he presses a button in front of his bench to indicate that he wants the animal. Pressing the button immediately stops the clock, and the buyer's bench number automatically flashes on the screen at the bottom of the board. Thus everyone knows who has bid for the calf, and how much. So swiftly does the electronic impulse flash the number on the screen, that there is not a chance in a million that two bids will be registered simultaneously, your reporter was told.

The new electronic auctioneer costs \$2,000, and another \$8,000 to wire it to 48 buyers' benches in front of it. Not only does this new system eliminate time-consuming haggling between buyer and seller, but it also brings all bids and offers out into the open and eliminates "private" deals.

"You can't 'grease' the clock," says one livestock buyer. The result is a freer and more flexible market, which helps the smaller buyer and smaller abattoir, for under this system of open bidding, the big buyers, who formerly could corner the market by arranging private transactions, have no advantage. The electronic board, which operates on the Dutch auction prin-



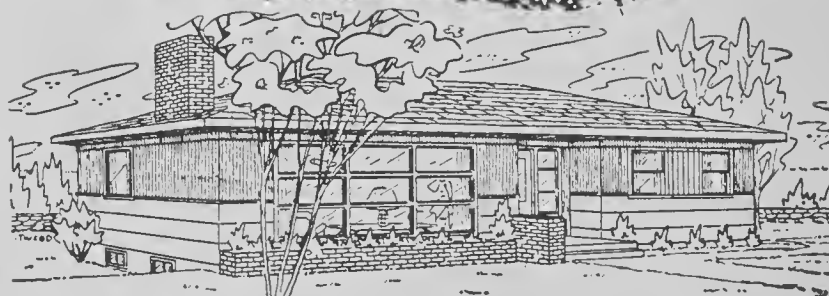
[Toronto Telegram photo]

The electronic auction board, which is said to be twice as fast as conventional auctioneering, here shows calf sale for \$22.05 to bidder No. 8.

ciple, by starting with the top price asked—the reverse of the one commonly used here—works to the advantage of the seller also. At the Ontario Stockyards in Toronto, its effect has been to drive up the price of veal calves by \$3 a hundredweight since its installation. If the seller does not wish to lower his asking price, he merely flashes the number 49 (always the number allotted to the seller) on the board, and withdraws the animal.

So satisfactory has the electronic auctioneer been since its installation in Toronto, that stockyards officials predict that in a few years this type of selling will be adopted for all North American livestock sales, and eventually for produce and poultry transactions also. V

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The new Van Oerle barn where cattle stand on concrete outside to eat feed available inside, provides wind protection and feeding space for 80 cattle. [Guide photo]

Cutting Down The Chores in Winter

New feeding barn for the Angus herd saves trips to the field for hay in cold weather

YOU'LL recognize the farm of Wm. Van Oerle, seven miles south of Castor, Alberta, on Highway 36, by the three rows of ten-year-old spruce trees, which entirely surround the house and much of the yard. Hardly a weed can be found among the trees, or through the garden or lawn. It's a handsome setting for the neat frame house.

But just as neat and pert is the new feeding barn which Mr. Van Oerle has placed slightly to the south, and on the edge of a well-protected pond. It provides feeding accommodation for the 80-cow herd of Angus cattle, and a full crop of calves as well. Also, it was built to save farm workers that bitter trip to the field to draw in hay during winter storms.

Mr. Van Oerle stacks loose hay in the field in summer, and used to draw it home for winter feeding right from the hayrack. Now, with his new barn, he can draw in feed to last about four months, in only a couple of weeks in the fall. It's a busy time, nevertheless, loading wagons in the field from stacks, with the front end loader, throwing it into the cutter box beside the barn, and blowing it into the barn. The hay has to be dry so it won't heat while packed in the barn. But it means that, in winter, about 45 minutes or less each day looks after the chores.

The barn is 32 feet by 60 feet in size. It is built with nine-foot studding set on a two-foot high foundation wall, and has a Gothic-arch-type roof rising another 20 feet in the air. To be sure of adequate drainage, five inches of sand were topped with five inches of cinders, and then rock and concrete for the foundation. A concrete ramp about a foot high, was built up to each side where the cattle feed. The rafters were cut at the lumber mill and nailed into shape on the farm, before they were raised. A wall, extending from each side at the north end of the barn, provides wind shelter, while the willow shrubs protect the cattle from other directions. Cattle eat between the studding along each side; and in a few minutes each day a man can throw enough of the chopped hay within their reach. Mr. Van Oerle

claims that there is absolutely no waste in feeding, and the cattle always have sufficient. He is more than satisfied with his investment of \$3,000 in materials, and his own labor.

Other features of the Van Oerle farm program are of interest, too. On three sections of land he grows twice as much grain as his herd of cows, calves, and yearlings can eat. Though maintaining a flexible crop rotation, he likes to seed down each field and leave it in hay for three or four years, occasionally. He feeds calves in the feedlot with his yearlings for a few weeks in fall and winter. By February he has them out with the cows, living on hay alone. He calls grain and livestock ideal for his farm on the brown soil of Alberta. V

Beef Cattle and Hogs

Continued from page 10

hogs at Chicago,—choice gilts and barrows, 200-220 pounds.

Hog Quality as a Market Factor. Why is it possible to maintain a higher price for Grade A hogs in Toronto than the equivalent price in the United States, when we have to export in the neighborhood of 700,000 hogs to that market? This means a little more than one out of every eight hogs marketed in Canada. Two or three factors are involved. First, is the fact that the average quality of Canadian hogs, which are of the bacon type and therefore do not carry as much fat, is higher than the average quality of U.S. hogs. In the packing plants, Canadian hogs give a higher cut-out of trimmed lean cuts, hams, loins or backs, and the two shoulder cuts called picnics and butts. The extra cut-out amounted to six per cent, or nine pounds on each 150-pound hog carcass. A second factor is the higher percentage of lean within the trimmed cut from a Canadian hog. Whether the hog is lean or fat, a top Grade A or a low Grade C, the bones in the carcass will weigh just about the same. Any difference in quality, therefore, must be in the amounts of lean and fat. In the Canadian hog the higher percentage of lean is carried right

through the cut itself; and hams and backs from Canadian hogs especially, can be sold to advantage on the American markets.

A third factor lies in the eating habits of people in the two countries. The average U.S. consumer will pay a higher premium for hams and backs, over the bellies and the shoulder cuts, than will the average Canadian consumer. A Canadian housewife will not pay much more per pound for the ham or loin than for the side or breakfast bacon of the bellies, or the butt and picnic cuts from the shoulders. Consequently, even if hogs in both countries are about the same price on the stockyards at Toronto and Chicago, the hams and backs will sell for more in the United States than in Canada. Within Canada there is a further factor at work, in that the Canadian housewife is turning away from fat on meat.

These considerations, plus the fact that lard and other animal fats and oils have in recent years been meeting increased competition from vegetable oils, mean that if the one hog out of eight that we must sell outside of Canada is too fat, he could easily set the price for the other seven at an unsatisfactory level to the producer. The truth is that the Canadian hog producer can only retain his relative independence of the U.S. market, if he specializes in a lean bacon-type animal, which will command the premium for trimmed lean cuts that only the American market will offer. We cannot compete with the American farmer in marketing hog fat. V

C.F.A. Twentieth Annual Meeting

Continued from page 9

to the C.F.A. These resolutions may originate anywhere in Canada, from the largest co-operative marketing organization in the country, to the smallest group of producers, whose initial contact with C.F.A. may be through a purely local co-operative, or organization of farmers affiliated in some way with the Provincial Federation of Agriculture in that province. If it receives the approval of the provincial federation, it comes forward to either the Eastern, or the Western Agricultural Conference, both of which are held just prior to the annual meeting of the C.F.A. Resolutions passed by either conference, or that are referred to some C.F.A. group such as the commodity group dealing with livestock matters, are passed on to the C.F.A. annual meeting. There they may be dealt with in public session, or directly by the board of 26 directors, which constitutes the official voting body at the national level.

A total of 76 resolutions reached the C.F.A. this year, and dealt with a wide variety of subjects. These ranged from weed control, tariff on potatoes, national sugar beet policy, the use of estrogen in caponizing poultry, the markings on feed bags, the testing of varieties of grasses and legumes and a request for additional research appropriations by the Federal government, to requests for subsidy wheat prices, a study of the cost-price squeeze in agriculture, hog grading, support for beef cattle prices, research in the food value of beef, poultry stealing, egg-grading regulations, an

interim payment on the 1954-55 wheat crop, national health insurance, the St. Lawrence Seaway, the Crow's Nest Pass Agreement, and marketing legislation.

THIS reference to the 20th annual meeting of the C.F.A. can appropriately conclude by noting a point made by President H. H. Hannam in his presidential address. After noting some factors tending to increase the insecurity of the farm business, such as wide and frequent market fluctuations, the abundance of natural hazards affecting agriculture, the inability of producers to regulate the total volume of agricultural production, the increasing importance of cash costs in farming, the relatively rapid increase in the efficiency of farm production, and the decline in the proportion of

the consumer's food dollar which the farmer receives, he said:

"These characteristics of agriculture and the outlook for world supply and demand conditions, are the factors which make the prospects for greater security for farm producers less favorable. This point of view is not put forward as a pessimistic one, but rather to set forth the nature of the problem to be met by agricultural and national policies in the years ahead. It is a realistic approach, which needs to be recognized by governments and by organized agriculture in shaping farm programs. It is to be hoped that a complete analysis and appraisal of these factors and trends, together with their significance for Canadian farm people, will be found in the proceedings and report of the current Royal Commission on Economic Prospects." V

More Attention Needed to Feeding

Healthy pullets given the right type of feed reduce culling to a minimum

IT seems to me that there are too many poultry articles written about culling the laying flock. While culling has its place, of course, I believe it is of minor importance compared with many other phases of poultry management. If only good, healthy pullets from one of the really good production strains available today are put in the laying house, no culling, except for reasons of health, should be necessary for at least nine months. A bird may be out of production for a couple of weeks and still come back to lay very heavily. Anyone who trap-necks has seen this happen many times. Culling such a bird would be bad business.

I believe that more emphasis should be placed on feeding. Properly fed, most of the culls would never have developed in the first place. There are two feeding mistakes that are repeated over and over again, on a great many farms. The first is too little feeding space. Many people think that if there is a trough in the pen and there is still some feed in it, the hens must have had all they need. It just doesn't work out that way. By providing what looks like too many feeders, every bird, even the most timid ones, can eat whenever it takes the notion. On our farm we use V-shaped troughs. One side is a 1 by 5-inch board, the other a 1 by 6-inch; 1 by 3-inch lips are used to prevent any feed being billed out. We build them eight feet

long and put them on stands about 15 inches high, and use at least two for every 100 birds. These troughs are cheap, easy to build, and are the best troughs for the job that I have ever seen.

THE second mistake is trying to cut expenses by skimping on concentrate. People hate to buy concentrate when they have all kinds of grain around. However, concentrate is not a substitute for grain. For good results you must use both grain and concentrate in the proper ratios. There are many feeding methods in use today; and I guess that I have tried most of them at some time or other. Everybody is looking for a system that is simple and at the same time will produce good results. We have settled on two different methods here. I'm not going to say that they are the best, but we like them and are obtaining very satisfactory results. One half of our flock is being fed by the conventional mash and whole grain method. We use a 19 per cent protein mash made up of two and one-half pounds of ground grain to one pound of concentrate. We have this mash in front of the birds at all times, and feed 12-14 pounds of grain per 100 birds in the evening. The whole-grain mixture is over half wheat.

Where two or three different people have a hand in looking after the poultry, I think our other method has a lot of merit. It is all-mash feeding. We use a 15.5 per cent mash made up of five pounds of grain to one pound of concentrate. This mash makes up the entire ration and no whole grain feeding, in addition, should be given. The beauty of this system is that you can mix up 100 pounds or so, to have on hand, and then anyone can do the feeding; and you are sure the birds are getting the feed they would get, if you did it yourself.

Many people hesitate to use wheat in their poultry feeds. On a cents-per-pound basis wheat is about the same price as oats or barley. We use about twice as much wheat as other grains, and feel that this pays off in better production.—D. R. Clark, Man. V

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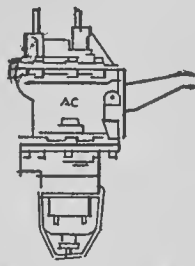
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The broiler business is highly specialized and success depends largely on ability to maintain healthy birds and an efficient feed-gain performance.

A Hog-Poultry Combination

Continued from page 10

and selecting the best gilts from good, quiet-tempered sows.

With broilers, attention to detail is even more important than with hogs. For example, water under pressure is piped into every pen, but first it is forced to the top of the brooder house where it goes through a "proportioner." There, a disinfectant is added. Feed is elevated mechanically to pens above ground level, but the hoppers are filled by hand, rather than by mechanical feeders.

"It doesn't take long to fill the hoppers," Art observed, "and while doing it, the workers are alert for droopy or listless birds. Then I can be called in time to head off trouble."

Usually he sells more birds as broilers than he orders as chicks, because hatcheries normally deliver about 104 chicks for every 100 ordered. In six years, he claims to have lost money on only one lot.

Thus, Art Webb reduced the risk inherent in specialization by adding broilers. Also, by keeping sizable lots of both pigs and chickens, he retained the advantages of specialization, with the result that both enterprises have been profitable.

Is Koga II a Threat To Our British Market?

Much-touted German spring wheat is not likely to affect our wheat market in Britain

by RALPH HEDLIN

THE experience with Koga II wheat has demonstrated very clearly that even in varieties of grain a storm can develop in a tea-cup. When this variety was first touted several months ago, as an answer to Britain's need for a high quality wheat, there was some question that it might seriously damage our best market for high-quality bread grain. However, the scientists have now completed their investigations and made their reports, and it has become clear that the threat was more apparent than real.

Koga II is a German spring wheat. Four years ago a British seed firm—Nickersons of Lincolnshire—imported stocks of the wheat to the British Isles. They coupled the increase of the seed with a very powerful promotion campaign. Then, in November of 1955, at the Toronto Royal, James Hodge of Warren Farm, Writtle, Essex, placed 18th with a sample of Koga II in a class of 38 entries. His sample placed above the Manitoba samples of Selkirk wheat. At a press conference in England, following this win, the general manager of Nickersons said that within two years Koga II wheat would allow Britain a saving of \$10,000,000, now paid to Canada for stocks of hard spring wheat. Canada, already pressed for export markets, would, according to this estimate, see its markets shrunk still further as a result of the quality of Koga II.

"We are not suggesting that we have a wheat that is better than anything grown in Canada," said the general manager of Nickersons. Canadian wheat is still in a class by itself, but we do feel confident that we now have, in Koga II, a hard spring wheat that can be mixed with soft wheat to make good bread." He said that Koga II was grown on about 800 different farms in different parts of the United Kingdom in 1955, and had produced an average of 54 bushels an acre—or 15 per cent above the yield of any other recognized wheat now grown in Britain.

On the heels of this record came additional promotion: In early De-



"Here's a lovely two-tone job in pearl grey and rose-petal pink."

cember, all 630 members of the British parliament were sent a two-ounce loaf of bread made from the Koga II wheat, and the suggestion of a \$10 million saving in purchases of Canadian wheat was repeated.

CANADIAN authorities have always been a little doubtful about the damage to Canadian exports that would result from Koga II grown in Britain. They pointed out that the climate has not changed in the United Kingdom; that excessive rainfall, lack of sunshine and rapid changes of temperature are typical of British weather; that this kind of weather does not grow high-protein wheat; and that high protein is a *must* for excellent milling qualities in a bread wheat.

They also point out that the arrival of Koga II is not likely to change the pattern of British farming. The major wheat acreage in the United Kingdom is not spring wheat at all—it is fall wheat. Broadly, the British farmer prefers to plant in the fall and, if the weather permits, spring seeding will be sharply reduced. Large plantings of spring wheat typically follow a cranky fall. Koga II will not reverse this practice. And fall wheat is a soft wheat.

As soon as it was possible to get some of the wheat, tests of baking strength were undertaken at the Grain Research Laboratory of the Board of Grain Commissioners. Koga II was compared with a standard export sample of No. 2 Northern wheat. The protein content of this No. 2 was 12.5 per cent, or lower than the long-time average of No. 2 sold by this country. Nevertheless, this No. 2 had a loaf volume of 740. The loaf volume of Koga II was a little higher than that of the average older British wheats; but it was still, at 530, only 72 per cent of the loaf volume of the Canadian No. 2. Loaf volume is a measure of bread lightness, a very important consideration to the baker.

Recently, Dr. F. J. Greaney, director, Line Elevators Farm Service, received further information from the official British organization responsible for crop variety testing — The National Institute of Agricultural Botany at Cambridge — which indicates that in England there is still a big question mark opposite Koga II, as a farmer's wheat.

THE Institute carried out its own extensive field tests throughout Britain. Says the director: "Since the war the most widely grown spring wheat in this country has been the Swedish variety, Atle. In fact, spring wheat was not an important crop, and the acreage remained small, until Atle was introduced and proved to be such a great improvement over the older spring wheats. I am mentioning this because Atle is a hard milling wheat and gives grain of excellent baking quality. It is considered one of the best quality wheats we have."

The director went on to point out that several promising spring wheats have been introduced into the United Kingdom over the last few years, and are being tested. Such varieties as Atson, Peko, Koga II and Svenno are considered promising. Atson is now being provisionally recommended to farmers: it is a rather higher yielding variety than Atle and produces grain

of similar quality. Koga II is also included in the trials, which indicate that it is higher yielding than Atle, and may outyield Atson. But they are not yet in a position to recommend Koga II to the British farmer.

Tests carried out on the samples grown by the Institute show Koga II as a hard milling wheat, and the breadmaking quality appears "quite good." It is superior to the average wheat presently grown in England. "We do not consider the quality to

be quite as good as Atle, which has been the standard spring wheat in this country for several years," the Institute reports.

The threat to Canadian wheat sales in Britain would not appear to be as great as early reports and claims might have suggested. In fact, say some Canadian grain men, there is no threat at all. There is no clear, reliable, unprejudiced evidence to show that Koga II is superior to the variety Atle, which has been grown for a number of years.

As far as the National Institute of Agricultural Botany is concerned, it does not consider Koga II to be quite as good as Atle. The fuss would appear to have been about a wheat variety that is no better than the varieties grown before.

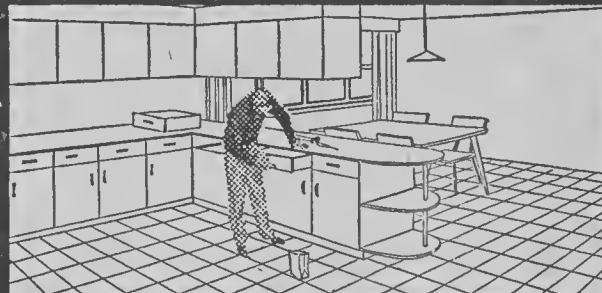
In the past, British millers have found it advantageous to mix high-protein Canadian wheat with these wheats. In other words, say the Canadians, there has been a lot of talk, but no real change in the situation of the last few years. V

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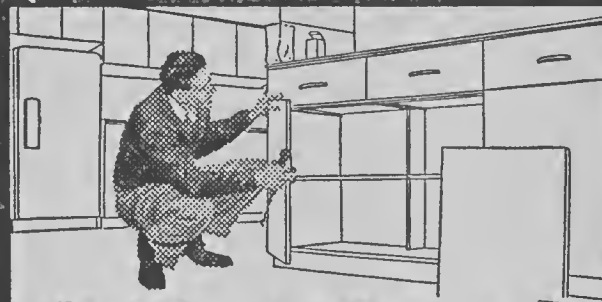
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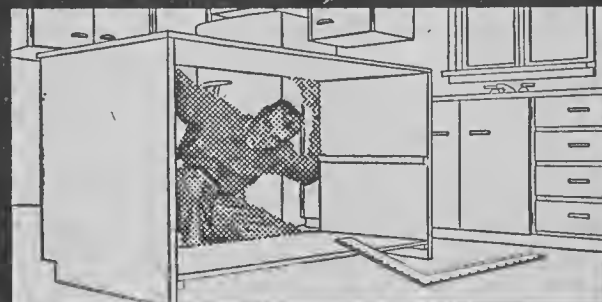
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VOL. LXXV WINNIPEG, FEBRUARY, 1956 No. 2

4-H Club Contests

THERE is an old, old story that has already served many good purposes, and will be useful here for another. It tells of a man who had occasion to pass a place where some workmen were working with stone. Walking over to one of them, he asked the man what he was doing, and the answer was, "I am shaping this block of stone." Approaching a second workman, the man asked what he was doing, and was told, "I am building a stone wall." The same enquiry addressed to a third workman brought the reply, "I am helping to build a cathedral."

If the same query were presented to members of the Canadian Council on 4-H Clubs we wonder what answers would be given. Some would have to content themselves with saying, "I am helping along a good cause," because they take no active part in the work of the Council, other than to contribute each year the full-membership fee of \$500, or the associate membership fee of \$100. Others would say, perhaps, "we are trying to encourage farm boys and girls to become 4-H club members. To give them something to look forward to as a reward for top achievement in each province, we stage the National Contests at the time of the Royal Agricultural Winter Fair, in Toronto, and bring the provincial winners down here for a week that will remain in their memories as long as they live."

The Council has done excellent work. The development of junior farm clubs from their beginning about 40 years ago, to a total membership of more than 70,000 throughout Canada today, owes much to those who have nurtured the movement and brought it to the stage of popularity that it has now achieved. For more than 30 years national contests have been held at the time of the Royal. Hundreds of farm young people have achieved place in the club work of individual provinces, and have won for themselves the right to participate in these contests. Most, if not all of them, no doubt regard this experience as one of the highlights of their lives.

All of this is praiseworthy and helpful—the local club meetings, inspiring leadership, achievement days, provincial contests, yes, and even, perhaps, the sale of beef calves; for which some club members receive twice as much as their calves are worth. But to what point of worthwhile achievement or development does all of this activity lead, in the end? To a visit to Toronto the Good? To the winning of a national livestock, seed, or poultry competition that is not really national after all? To competitions in which some provinces have little, if any, chance to win at any time, and others little or no inclination to try? To competition in which winning depends as often, perhaps, on the time and money expended by provincial departments of agriculture on coaching the contestants, as on the abilities of the contestants themselves?

Surely the many thousands of 4-H club members in 1956—whatever might have been said for it in 1926—are now entitled to a broader and more permanent objective! There can be little doubt that the outstanding needs of agriculture in Canada, as in other countries, are education and leadership. Nor is it a figment of the imagination to believe that the leadership of the future must come, largely at least, from the 4-H Club members of today. Moreover, it is certain that rural leadership will be more evenly divided between the farm men and women of tomorrow than it has been up to now. Is not this a suitable time, then,—when a new year is nicely started, and when the Council is shortly to hold its annual meeting,—to begin thinking less of shaping stones and building walls, and more about building the edifice which will help to make the future secure for all of us in agriculture? Would a series of scholarships, or of national 4-H club

leadership awards not be more appropriate to the purpose—and the need? It seems to us that such an approach would yield a far richer reward to those who have so persistently and unselfishly supported the work of the Canadian Council on 4-H Clubs, to say nothing of the worth of the award to those who win, the value of the experience to those who do not, or the importance of the general objective to the farming industry. V

Quebec Marketing Legislation

THE 64-point decline in the index figure representing prices received by farmers for farm products between 1951 and 1955, has turned the thoughts of many farmers and their organizations to marketing problems. Growing interest in producer marketing boards, set up under provincial legislation to control the marketing of specific products, has marked the period of price decline.

Around 20 marketing schemes are in operation in Ontario, and in addition, there are marketing schemes operating in British Columbia, Saskatchewan, Manitoba, Nova Scotia, New Brunswick and Prince Edward Island. In 1955, only two of the mainland provinces had not yet passed the necessary permissible legislation. These were Alberta, which enacted the necessary legislation at the last session of the legislature, and Quebec, which will provide marketing board legislation during the current session of the Quebec legislature. It is significant of the widespread concern among farmers about marketing problems, that this type of legislation has extended from British Columbia, where it was first made operative, all the way to the Atlantic.

It is by no means certain as yet that all of the hopes of those who have worked hard to secure such legislation will be realized in the coming years. Nevertheless, ideals are good in themselves, even if they sometimes lead to ideas that do not work out in practice. One of the hopes of some forward thinkers in agriculture today is that with complementary federal and provincial legislation, it will prove practicable for associated marketing boards to market some products through countrywide operation. Whether it will ever be possible to achieve Canada-wide unity in support of a national marketing agency for any single product is still fairly speculative. As matters stand now, the existing Ontario marketing board legislation is to be examined by the Supreme Court of Canada in April. Until the opinion of the court is announced, all of those interested will be uncertain as to what amendments will be needed, if any, in existing federal legislation to permit either provincial or inter-provincial schemes to operate satisfactorily.

For thousands of Canadian farmers who have become accustomed to co-operative activity on a voluntary basis, the trend toward marketing legislation, if not a threat to co-operation, is at least revolutionary. Time alone will tell whether Canadian agriculture is moving faster than it is thinking. V

One Hundred Per Cent of Parity

A NUMBER of well-meaning people in agriculture would like to see farm prices supported by the government at 100 per cent of parity. This level of price support, they think, would place agriculture in a position of "parity," or equality with other parts of the national economy. Some people tend to think of it as giving to farmers "a fair share of the national income."

It is unfortunately not understood that even if political conditions existed in Canada which were favorable to price supports equivalent to 100 per cent of parity, the most rigid production controls would be necessary on every Canadian farm producing the controlled products. Failure of the government to impose such controls would lead to such surpluses of many products that no Canadian government could withstand the criticism that would follow. Surpluses would be inevitable even with firm controls, because of the rate of increase in production per man that is now possible.

Not only is this true, but no government would be foolhardy enough to believe that, even with the aid of controls, it could predict the course of prices and the behavior of the industry with sufficient

accuracy to maintain agriculture in a condition of equality, or parity. A further complicating factor is Canada's dependence on export markets, to which agriculture now contributes about 23 per cent of our total exports. The course of farm prices for exportable Canadian farm products cannot be predicted. In short, any talk of support prices for farm products at 100 per cent of parity is misleading and wishful thinking in 1956, whatever it might prove to be in 1986 or 2056.

The Country Guide favors support prices for an industry which is characteristically subject to instability of production and prices. We also favor the principle of equality between agriculture and other sections of the economy. We do not favor attempts to achieve equality by high, fixed price supports. In the United States these have existed for 15 years, and their most notable achievement have been to create unmanageable surpluses and to place premiums on inefficiency.

Alternatives to Wheat

THE problem which faces the western wheat producer this winter and spring is much more simply stated than solved. The problem is: What will he use for money with which to pay operating and living expenses, until Wheat Board sales and subsequent payments to producers permit a return to fairly normal conditions? Assuming that the wheat carryover on July 31 will approximate that of last year, and that no one can predict when the situation will return to normal, the question of primary importance still remains the same.

With elevators filled and large amounts of grains stored on farms, the prospects for the early delivery of the crop to be grown this year are not bright, and ultimately lead to a query as to what alternatives are available as sources of cash income. We cannot see much hope, if any was ever justified, that the government will consider favorably any storage or advance payment on farm-stored grain. We do hope—and expect—the government to make every effort to provide producers, before seeding, with a final payment on the 1954 crop, and perhaps an interim payment on the 1955 crop. Such payments, however welcome they would be to many producers, would leave many others practically unaided. Meanwhile, the wheat in store would remain.

There are several ways of looking at the wheat surplus. One is to accept it as a circumstance beyond the control of either the producer, the Wheat Board, or the government, and to hope for the best, in the knowledge that surpluses have occurred before and have disappeared in time. Another is to accept the present grain surplus as evidence that other surpluses could easily develop, if western farmers begin producing much more poultry, livestock and dairy products. This view might suggest a direct obligation on the Federal government to protect these other branches of agriculture from danger, by taking prompt, preventive measures on behalf of the grain producers. Still another view would regard the wheat surplus as a fact and its duration as unpredictable; likewise, the soundness of the old adage that "Providence helps those who help themselves." In this view the fact of a cash shortage of indefinite duration is regarded as the most pressing problem to be solved by each individual farmer with the means at his disposal.

Such means, for the most part, are alternative sources of cash income from other crops that are not bound to the Wheat Board, or from one or more kinds of livestock and poultry. In the belief that many farmers will regard the latter view as the most practical under their individual circumstances, an article elsewhere in this issue suggests possible alternatives to wheat, for different areas in the prairie provinces, as recommended by nine prairie experimental farms. It should be emphasized, perhaps, that these are recommended as possible choices within his area by the individual farmer, as he may believe them suitable to his soil, his resources, or his inclination. Further information about any suggested crop, or alternative, is available on request from the nearest official source, which may be an agricultural representative, a university, experimental farm or provincial department of agriculture. V